DOCUMENT RESUME

ED 238 958 UD 023 084

TITLE	Title I ESEA Programs in the Boston Public Schools: Middle School Reading Program; High School Reading Program; High School Mathematics Program; and Reading/Language Arts Program (PL 81-874). Final Evaluation Report to Project and School Personnel, 1978-79.
INSTITUTION	Educational Planning and Research, Boston, MA.
SPONS AGENCY	Boston Public Schools, Mass.
PUB DATE	79
NOTE	147p.; For related document, see UD 023 077.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	*Achievement Gains; *Compensatory Education; Educationally Disadvantaged; Elementary Secondary Education; Hearing Impairments; High Schools; *Language Arts; Middle Schools; Parent Participation; *Program Effectiveness; Program Evaluation; *Remedial Mathematics; Remedial Programs; *Remedial Reading
IDENTIFIERS	Massachusetts (Boston)

ABSTRACT

In Boston's Title I Middle School Reading Program, and High School Reading, Reading/Language Arts, and High School Mathematics Programs (1978-79), the criteria for growth in reading and math skills were met on a program-wide basis. Mastery of performance objectives in reading by a majority of students was, however, achieved with only limited success. Overall, students with the greatest need were served by the programs, and individual student needs were assessed and met. Parent involvement was minimal. Additional teacher training was needed in some areas. Poor student attendance was a problem. At the high school level, the introduction of the language arts component into the reading program at some schools appeared to have been a positive step, although not all reading/language arts teachers fully understood the concept and purpose of the language arts component. Scheduling difficulties, cases of friction between faculty and program staff, and isolation of Title I services from the total school efforts were areas of concern. In the Middle School Reading Program it appeared that the combination of two of the three instructional designs used might give students a more rounded approach to communication skills. It was concluded that the third design, for the hearing impaired, should remain separate. Problems related to poor student attendance, motivation, and scheduling were also areas of concern. (CMG)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED238958

1978-1979

Title I ESEA Programs

in the

Boston Public Schools

FINAL EVALUATION REPORT

to

PROJECT and SCHOOL PERSONNEL

Middle School Reading Program
High School Reading Program
High School Mathematics Program
and
Reading/Language Arts Program
PL 81-874

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Margaret M. Callahan
Boston Public Schools
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
~~This~~ document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Submitted to:
THE DEPARTMENT OF MANAGEMENT INFORMATION SERVICES
of
THE BOSTON PUBLIC SCHOOLS

Submitted by:

EDUCATIONAL PLANNING AND RESEARCH
40 Court Street, Boston, MA 02108

UD 023084

MARGARET M. CALLAHAN
Chapter 1 Program
26 Court St., 3rd fl.
Boston, MA 02108

TITLE I Function Numbers: 79-035-134
U-302-330-9111-02
PL 81-874

1978-1979

Title I ESEA Programs

in the

Boston Public Schools

FINAL EVALUATION REPORT

to

PROJECT and SCHOOL PERSONNEL

Middle School Reading Program
High School Reading Program
High School Mathematics Program
and
Reading/Language Arts Program
PL 81-874

Submitted to:
THE DEPARTMENT OF MANAGEMENT INFORMATION SERVICES
of
THE BOSTON PUBLIC SCHOOLS

Submitted by:

EDUCATIONAL PLANNING AND RESEARCH
40 Court Street, Boston, MA 02108

TITLE:	TITLE I ESEA and PL 81-874 Final Evaluation Report for the Middle School Reading Program, High School Reading Program, and Reading Language Arts Program
AGENCY:	EDUCATIONAL PLANNING AND RESEARCH 40 Court Street, Boston, MA 02108
PRINCIPAL ADMINISTRATOR AND EVALUATOR:	William R. Grieve, Ed.D., Director
ASSOCIATE ADMINISTRATOR AND EDITOR:	Harriet Bush, M.A., Assoc. Director
TRANSMITTED BY:	Michael D. Gelardi, Asst. Director
TRANSMITTED ON:	September, 1979

TABLE OF CONTENTS

Chapter		Page
1	Introduction and Evaluation Procedures	
2	Evaluation Findings	
	High Schools:	
	Reading Only Program	10
	Performance Objectives	13
	Achievement of Performance Objectives	15
	Reading/Language Arts Program	18
	Performance Objectives	23
	Achievement of Performance Objectives	24
	Assessment of Writing Skills	36
	Work Study Program	38
	Middle Schools:	
	Design I	42
	Performance Objectives	49
	Achievement of Performance Objectives	50
	Design II	56
	Achievement of Performance Objectives	58
	Design III	62
	Achievement of Performance Objectives	64
	Non-Public Schools:	68
	Achievement of Performance Objectives -	
	High Schools	70
	Middle Schools	77
3	Student Attendance	82
4	Student Achievement	84
	High Schools:	
	Reading Only	85
	Reading/Language Arts	88
	Work-Study Mathematics	96
	Middle Schools:	
	Design I	97
	Design II	99
	Design III	101
	Non-public Schools:	
	Non-public Middle Schools	101
	Non-public High Schools	102
5	Conclusions and Recommendations	106
	High Schools	108
	Middle Schools	109
	Attainment of Program Objectives	110
	Status of Previous Recommendations	114
	Recommendations	117
	Additional Recommendations	119
	Evaluation Team Members	121

LIST OF TABLES

Table		Pages
	Achievement of Performance Objectives	
1-4	High School - Reading Only	16-17
5-12	High School - Reading/Language Arts	26-35
13-16	Middle School - Design I	51-55
17-20	Middle School - Design II	60-61
21-24	Middle School - Design III	66-67
25-32	Non-Public Schools - High Schools	72-76
33-36	Non-Public Schools - Middle Schools	78-81
	Attendance Data	
37-39	Student Attendance	
	Student Achievement	
40-47	High Schools	86-94
48-49	Middle Schools	98-100
50-51	Non Public Schools	102-103

FINAL REPORT PREPARED FOR TITLE I

PROJECT and SCHOOL PERSONNEL

Title I Reading Program 1978-1979

CHAPTER 1

INTRODUCTION AND EVALUATION PROCEDURES

The 1978-1979 Title I middle and high school reading and language arts programs were implemented in 32 Boston public schools and 12 non-public schools in a multi-faceted approach to the development of reading skills. Three separate designs were established on both the high school and middle school levels. These approaches were developed and implemented throughout the year and are described separately in this report.

PROGRAM DESCRIPTION

High School Overview

The Title I reading program was implemented in 12 high schools in September, and in January an additional program was added with the assistance of Part B Title I funding. A total of 19 teachers and 19 teacher aides provided services to approximately 1000 high school Title I students, not including eight Title I teachers at the "work-study design" high school, or one additional teacher in another school who implemented a new work-study pilot reading program in February.

The programs focussed on the continuation of Title I services to eligible students, and the establishment of new high school programs. In all schools, reading classes had been established following Title I guidelines, and individualized student

instruction had been implemented by teachers and aides with the direct assistance of the central office administrative team.

Eight of the 13 high schools provided reading activities related to the development of reading skills in other academic areas and to the development of basic writing and other communication skills in a reading language arts program. In four schools, the Title I program was specifically focussed on basic reading activities, using THINK materials supplemented by other teacher-made and commercially prepared materials. In the work-study school program, Title I reading and mathematics services were directly related to the program and instruction was correlated to the on-the-job needs of students as well as to individual students' reading needs.

At one of the schools, an additional pilot work-study reading program was established in February which incorporated work experience directly into program activities.

Middle School Overview

The middle school Title I reading program provided supportive reading instruction to approximately 2000 target students in grades six, seven, and eight. A total of 40 teachers and 40 aides developed individualized programs of instruction utilizing a diagnostic-prescriptive and individualized approach. Three design approaches were used in program implementation in the 1978-1979 school year. Fifteen schools were involved with the Design I reading programs. Three schools were provided with reading instruction through a New Century Laboratory Design II approach, and Design I programs also operated at two of these schools. Design III was established as a pilot program for the

Jackson-Mann School's hearing-impaired students. The three designs are described in the full evaluation report.

Non-Public Schools

A total of 12 non-public schools each received the full services of a Title I teacher and aide throughout the 1978-1979 school year. In addition to six Title I programs implemented in September two non-public middle schools also implemented programs in September bringing the total number of middle schools to receive Title I services at the beginning of this year to eight. The Title I program followed the public school middle school Design I format and objectives. In January, the reading/language arts program was implemented in four non-public high schools. Approximately 500 non-public school students received Title I program services.

Program Objectives

The general objective with specific reference to student selection assessment of needs, parental involvement and participation, communication, and the achievement of growth in reading was established as goals to be achieved in each of the separate middle and high school designs or approaches. Specifically the objective indicates that the purposes of the program are:

> To identify students, within each school, with the greatest need for remedial reading services, and to individually assess these needs. To inform parents of their child's participation and progress. To inform city-funded reading teachers and/or reading coordinators of student progress. To involve Title I parents in the local P.A.C. and its activities. To have a majority or all students achieve the specific objectives outlined by Boston Public School's

Reading Department. An average .7 grade point equivalent growth in reading skill will be attained by the end of the year.

EVALUATION PROCEDURES

Various evaluation approaches were employed in obtaining information needed to determine the strengths and weaknesses of the High School and Middle School Reading Programs so that ongoing appraisal could be provided and in order to use assessment findings in assisting program personnel in achieving program goals as well as in documenting program implementation, the determination of final program outcomes, and reporting.

The major thrust of this evaluation was directed toward the appraisal of educational services in terms of whether or not these services met inner-city needs, as well as the development of basic skills, through supportive and supplementary services.

Procedures were focused on the objectives, activities, instructional procedures, methods, techniques and materials, curriculum, program implementation, program coordination, the integration and correlation of subject matter, the extent to which program activities, information, and benefits were infused into the regular and overall instructional program, and the implementation of recommendations and changes found to be necessary as the program progressed. Special attention was given to the implementation of this program in terms of the policies of the Boston School Department as well as the regulations set forth in official Title I literature. Emphasis was placed on the extent to which the objective, and its specific sub-objectives, as stated in the original proposal, were achieved and the extent to which

innovative approaches and techniques, and varied aspects of participation, led to and resulted in achievement of anticipated outcomes.

The evaluators interpret the objective, as stated was intended to call for the assessment of each of its facets separately as well as its overall attainment. The sub-objectives were considered to be:

a. To identify students with greatest needs

b. To individually assess pupil needs.

c. To inform parents of child participation and progress

d. To involve Title I parents in the local P.A.C. and its activities

e. To have a majority of students achieve the specific objectives outlined by the Boston Public School Reading Department

f. To provide for an average .7 grade point equivalent growth in reading skill.

The appraisal of this program was conducted in cooperation with the Office of Management Information Services, the Title I Office of Research and Evaluation, the program coordinator and her staff, and the principals of the schools in which it functioned, as well as the teaching staff responsible for its implementation. Upon initial approval of the evaluation, the Associate Director of Title I Research and Evaluation and the program director were consulted and interviewed with reference to the evaluation procedures to be used. Program information and documents were reviewed, and the evaluators met, and briefly outlined evaluation procedures for the entire program teaching staff.

Following clearance to enter the program sites the evaluators interviewed administrators, teachers, and supportive program personnel, and observed program classes and areas in which program activities were being implemented. During the course of the year, at least four visits were made to each school for the purpose of conducting interviews and making observations. Structured interview guides and observation checklists were used . Where checklists, questionnaires, and other measurement instruments were used, the data they provided were analyzed and interpreted in order to substantiate interview and observation findings in accordance with the evaluation proposal submitted and to complete the overall program appraisal.

In brief program educational processes and implementation was evaluated by means of the following procedures.

1. Interviews with Assistant Director in charge of project
2. Interviews with Associate Director in charge of Research and Evaluation
3. Interviews with teacher coordinator of program
4. Interviews with program teacher, teacher aides, and parents
5. Interviews with principals, headmasters, and administrators assigned to program schools
6. The use of survey techniques used as checklists when appropriate
7. Classroom observations
8. Observation of training sessions for staff
9. Review of program proposal and other program documents
10. Review of program assessment instruments and procedures (for selection and measurement of achievement)
11. Analysis and interpretation of measurement results

12. The construction and use of measurement instruments according to program needs.

Because some difficulties were experienced in the use of standardized test results for the assessment of achievement the evaluators approached the analysis of test data using an alternative to the grade level approach suggested by the stated program objective. (It should be explained that the Metro 70 Achievement Test was administered as a pre test early in the year. During the first weeks of May the Metro 78 Achievement Test was administered as a post test. Unfortunately, difficulties in establishing appropriate correlative scores for the two tests, and of conversion tables, made the determination of the extent of pupil growth pre-post score comparison impractical and required the use of an alternative percentile data analysis approach.) The rationale for using this substitute procedure was established on the basis of the only information and hard data that was available to the evaluators. It may be explained in the following way.

The program objective states as a success criterion that a majority of the students receiving services will attain a .7 grade level gain during the school year, i.e. from pre test to post test. The instrument used was the Metro 70 test, from which data was supplied.

Raw score, standardized score, percentile, and stanine were supplied by the schools for each student in both pre and post tests. No grade level equivalents or norm conversion tables were available at the time of data processing and analysis. Thus, a substitute method of growth analysis was used. The following

provides the rationale and mechanics of this method.

Because the Metro 70 Test is a well known nationally administered test, its validity and reliability must first be assumed. With this assumption, the "average student on grade level" places at the 50th percentile on the pre-test. If this "average student" maintains his position (50th percentile) on the post-test, he has gained 1.0 grade level during the academic year. The nationally normed validity of this test assures this result. Thus a zero percentile gain from pre-test to post-test at the 50th percentile equates to a 1.0 grade level gain.

Because it can logically be assumed that the normal curve holds in both pre and post-test cases for the target population, a zero percentile gain indicates a maintenance of relative position and correspondingly, a maintenance of "expected gain" for the individual student. If we define "expected gain" as "tested grade level" divided by "actual school grade level placement", a student on grade level would be "expected" to gain 1.0 grade level for each academic year, while a 9th grader three years below grade level at the beginning of the school year would be "expected" to gain $\frac{6.0}{9.0} = \frac{\text{Tested Level}}{\text{School Placement}} = .67$ grade level.

Because the project goal is .7 grade level, a student three years below grade level could, in grade 9, almost achieve program success with a zero percentile gain (.67 vs .7). A positive percentile gain (1 or more) would assure success, since the expected grade level would be surpassed. Since the "expected" grade level increase would be lowest for a student three years below grade

level in grade 9 as opposed to grades 10, 11, or 12 (i.e. .67 vs .70, .73, .75), to accomodate the additional success needed for those students at the lower levels, a success will be defined as a percentile gain of 1 or more for the individual student regardless of grade. In view of the preceding narrative, this analysis should provide a valid substitution.

The accomplishment of performance objectives in each of the seven program groups was determined through the comparison of the number of specific objectives that were achieved with the total number that might have been achieved if all students in a group had mastered each of the performance objectives for their particular group. Percentage of objectives achieved, by group, has been presented.

Attendance data for each group, as provided to the evaluators by the Title I office have also been analyzed to provide a percentage of possible attendance achieved by both schools and programs.

On-going consultation in the schools and in the central Title I office it is believed permitted the assessment to be a positive factor in program implementation and for the evaluators to make both formative and summative recommendations which may be valuable in future program implementation.

Chapter 2

EVALUATION FINDINGS

Observation and interview findings, and the extent to which specific performance objectives for each of the separate programs on both the high and middle school levels were achieved are presented in this chapter. Findings in the non-public schools are also included. In programs where insufficient information regarding the achievement of objectives was provided performance objective achievement tables and analysis have been omitted. The achievement of growth as measured through the use of standardized instruments in each of the programs is presented in a separate section of this report.

High School - Reading Only Program

The Title I reading program implemented in the 1978-1979 school year in four Boston High Schools provided the supportive services of eight teachers and eight aides to approximately 360 Title I eligible high school students.

In all of the four schools' Title I classrooms, teachers implemented reading programs following Title I guidelines and reading objectives. Evaluation findings revealed that teachers developed individualized materials and activities to meet the specific needs of students on a daily basis, and that individual student records and files were maintained throughout the year.

The Iowa Silent Reading or Metropolitan Achievement Tests were used as a part of the screening process in the selection of students most in need of assistance of Title I services at the commencement of the school year. Students with Metropolitan

Achievement Test scores falling below the Title I stipulated 41st percentile and eligible for Title I services, were selected. In one school, the lowest percentile group of students was impossible to service because of the limits of a pre-arranged school schedule and competition with another reading program for students. The scores of those students who participated in the program did, however, fall within Title I specifications. In another school, it was reported that only freshmen were included in the program. In one case, the selection process of students had been delayed because of lack of student records.

Evaluation findings revealed that the reading teachers at all schools planned and worked on the diagnosed individual needs of selected students. Among the testing instruments that had been used in this process was the Spache Diagnostic Test. The Botel Word Recognition was also used as an informal check on students' reading levels.

The main thrust of teaching techniques was the development of individualized reading instruction. Evaluation findings revealed that reading instruction was also provided to small groups and, in some cases, to the entire class where subject matter was appropriate and the need existed.

Although reading classrooms in general were assessed as being attractive, in some cases evaluation findings revealed a lack of displays related to the promotion of reading or reading-related topics. The evaluators observed an abundance of materials in use throughout the year and found that many teachers relied on commercially prepared aids, workbooks, and kit materials

in their work with students. Materials observed to be used most frequently throughout the year were the THINK Series, Barnell Loft Series, SRA Laboratory, Readers Digest Workshops I and II, and many recreational reading materials. Interviews with all teachers revealed that despite the quantity of materials available many were dissatisfied with the quality of some. Teachers continued, in many instances to express concern about the scarcity of appropriate reading materials structured to the interest and reading abilities of students. Teacher dissatisfaction with THINK materials was also expressed, and teachers were observed to have supplemented the reading program with additional materials throughout the year.

Interviews indicated that teacher awareness of the need to continue development of reading materials more appropriate to students' life experience had improved, and evaluation findings revealed that this trend was evident in the increased use of magazines, newspapers, and other reading materials observed in evaluation visits this year.

Evaluation findings revealed a number of problems beyond Title I control which tended to hinder program implementation. According to interviews and observations, poor attendance continued to remain a problem in Boston high schools. This was reflected in the attendance of Title I students, and indicated a need for improved student motivation techniques. The scheduling of Title I classes into the high school appeared to continue as an unresolved problem. Interviews revealed that efforts were made in one school to reduce these problems for next year by

planning the schedule at the end of the 1978-1979 school year. However, it was reported that teacher and student frustration caused by conflicting schedules between Title I classes and other subject area classes remained a problem in some of the schools.

Interviews and observations indicated that although principals and Title I personnel were aware of the need for parental involvement, parent response to the ongoing efforts that had been made to contact and encourage parent participation was minimal.

Evaluation findings revealed that although teachers were aware of the need to confer with subject area teachers concerning student progress, there was little evidence that such conferences occurred either on a formal or informal basis. Interviews with teachers revealed that because of the high schools' organization and structure which divided the teaching effort into segmented curriculum areas, it was difficult to develop a holistic approach toward individualized instruction.

Interview and observation findings indicated that although these problems existed throughout the year, teachers displayed enthusiasm and demonstrated good rapport with students during program implementation.

Performance Objectives - Reading Only

The performance objectives outlined for the Reading Only program were related to phonic analysis, structural analysis, comprehension skills,and reference and study skills. These objectives

stated in detail in the Department of Title I Programs outline of performance objectives have been listed below only by the particular aspect of reading or the skill with which they deal rather than the criterion and the extent of mastery required.

Phonic Analysis

1. Blends
2. Digraphs
3. Long and short vowels
4. r-controlled vowels
5. Diphthongs
6. Hard and soft (c and g)

Structural Analysis

1. Syllabication
2. Identification of root words
3. Identification of prefixes and suffixes

Comprehension Skills

1. Following written directions
2. Context clues - words with multiple meanings
3. Context clues - appropriate meanings: unknown words
4. Locating information in a paragraph
5. Pronoun - antecedent
6. Main idea - expressed
7. Summarizing a paragraph
8. Cause - effect relationships
9. Drawing conclusions
10. Predicting outcomes
11. Illogical/logical thinking
12. Main idea - implied
13. Organizational patterns
14. Fact - opinion
15. Figuarative language

Reference and Study Skills

1. Use of alphabetical order
2. Dictionary usage
3. Locating Information
4. Use of reference materials (publications)
5. Use of reference materials (graphics)

Achievement of Performance Objectives - High School - Reading Only

Achievement of "Reading Only" performance objectives, in phonic analysis (TABLE 1), comprehension skills (TABLE 2), structural analysis (TABLE 3), and study skills (TABLE 4), by this program group across three program schools indicated the greatest percentage (64%) of mastery in three objectives concerned with structural analysis (TABLE 3). In phonic analysis (TABLE 1), the data showed 61% achievement. Achievement in the other two areas, comprehension skills (TABLE 2), and study skills (TABLE 4), on the basis of data provided to the evaluators, fell far below expectations with mastery being 39% and 27% respectively.

It was interesting to note that in phonic analysis achievement for two of the schools indicated a gain in mastery of over 80%, and in study skills, these two schools achieved average gains of over 33% rather than 27% for the total group. Of the total of 38 performance objectives for which growth data was reported the overall achievement for the 301 program students listed was 34%.

TABLE 1

Final Achievement of Performance Objectives
I. High School - Reading Only

N = 301

Phonic Analysis

School	No. of Pupils	Objectives 4	5	6	7	8	9	TOTAL	Percent of Achievement
Charlestown	92	4	1	10	1	1	37	54	10%
Jamaica Plain	112	101	100	96	93	93	93	576	86%
Roxbury	97	89	68	81	80	79	68	465	80%
TOTAL	301	194	169	187	174	173	198	1095	61%
Percentage		64%	54%	62%	58%	57%	66%	61%	

TABLE 2

Final Achievement of Performance Objectives
I. High School - Reading Only

N = 301

Comprehension Skills

School	No. of Pupils	Objectives 1	3	4	6	7	9	10	13	14	15	18	20	21	24	26	TOTAL	Percent of Achievement
Charlestown	92	80	66	66	63	43	33	17	13	5	3	1	5	1	10	--	406	29%
Jamaica Plain	112	37	89	77	59	15	89	3	78	65	41	66	12	--	40	--	671	40%
Roxbury	97	54	64	48	66	56	66	43	50	63	45	36	40	51	18	--	700	48%
TOTAL	301	171	219	191	188	114	188	63	141	133	89	103	57	52	68	--	1777	39%
Percentage		57	73	63	62	38	62	21	47	44	30	34	19	17	23	--	39%	

* Burke High School data not available.

TABLE 3

Final Achievement of Performance Objectives
I. High School - Reading Only

Structural Analysis

N=301

School	No. of Pupils	Objectives 2	3	5	TOTAL	Percent of Achievement
Charlestown	92	66	55	70	191	69%
Jamaica Plain	112	58	67	80	205	61%
Roxbury	97	67	67	50	184	63%
TOTAL	301	191	189	200	580	64%
Percentage		63	63	66	64%	

TABLE 4

Final Achievement of Performance Objectives
I. High School - Reading Only
Reference Study Skills

N=301

School	No. of Pupils	Objectives 1	2	5	6	7	TOTAL	Percent of Achievement
Charlestown	92	15	17	10	1	--	43	9%
Jamaica Plain	112	96	77	13	--	--	186	33%
Roxbury	97	65	43	46	5	11	170	35%
TOTAL	301	176	137	69	6	11	399	27%
Percentage		58	45	23	20	36	27%	

* Burke High School data not availble.

High School - Reading/Language Arts Program

The reading/language arts program was implemented in a total of eight Boston high schools during the 1978-1979 school year. One of these school's programs, funded under part B of Title I, was not introduced until January. By the end of January, all programs had been well established and all teacher aides had been assigned and materials had been received. A total of eleven teachers and eleven aides provided individualized programs of instruction to a total of 550 enrolled Title I-eligible students. At the eight schools, five schools each had one teacher, and three schools each had two teachers who provided Title I program services throughout the year.

Selection criteria included Metro 70 or Iowa Silent Reading Test scores, teacher recommendations, and area geocodes. All students scoring below the 41st percentile on the tests were considered. At two schools, however, the cut off point was lowered to the 21st percentile because there were not sufficient resources to accommodate all students. Diagnostic tests, including the Iowa Silent Reading Test, the Inventory of English, the Spache Diagnostic Test, and teacher-constructed diagnostic instruments were used by teachers throughout the year as needed.

Teachers interviewed revealed opinions that the tests used for the program had been too difficult, that the computerized answer sheets were too confusing to students, and that some students were over-tested. These were cited to be a factor in "turning students off". The Iowa Silent Reading Test was administered in May as a post-test.

Interviews and observation findings indicated that in some

schools approximately 60 percent of class time had been focused upon reading skills and 40 percent on written work.

Evaluation findings revealed that without exception, Title I guidelines relating to the maintenance of students' records and individualization of instruction had been implemented within the schools' reading/language arts programs. In each school, the evaluators were shown folders which were kept for each individual student and contained information concerning progress test scores and attendance.

Observations throughout the year indicated that in most cases teachers relied heavily upon the use of commercially prepared workbooks and materials in the preparation of individualized programs of student instruction. Interview findings revealed that a major part of the Title I program had dealt with the teaching of grammar and comprehension skills. Evaluators examined various materials concerned with sentence structure and parts of speech and, in one school at mid-year, teachers had devised and administered a battery of tests to determine the extent of growth in specific skill areas.

Continued effort to incorporate writing skills into the program for the purpose of relating them to reading skills and of strengthening reading skills through a broad language arts approach were observed in a majority of teaching situations. As a part of these activities a writing sample analysis was made at both the beginning and the end of the year in these classes to determine the extent to which writing skills had improved and to plan and redirect instruction during future programs. The results of the experimental administration of the

instrument, designed by the evaluators follows the presentation of performance objective achievement in this appraisal of the "Reading/Language Arts" program.

Interviews and observations revealed a need on the part of a small number of program teachers for clarification of the purpose of the language arts component of the Title I program. A few of these, however, had developed innovative materials which involved the utilization of students' reading, writing, and research skills. The use of cameras, sports activities, and the maintenance of an aquarium were among the program activities observed. In one school, a teacher reported implementing a student interest, "Rock 'n Roll Reading", which was reported to be the most "dynamic" class of the year. In some schools, evaluators observed activities such as composition and letter writing and follow-up written and oral work from tapes, as well as the use of magazines, periodicals, and the reading of plays. Other activities included oral reading exercises with an emphasis placed on improvement of pronounciation, punctuation, vocabulary, and sentence construction.

Evaluation observations revealed that a great quantity of commercially-prepared materials had been available throughout the school year and teachers reported that the Title I administration team was especially responsive to requests for additional materials.

Evaluation findings indicated that a number of problems remained in Title I program implementation in the high schools. Scheduling of reading classes remained a problem area and

interviews indicated that Title I classes interfered with student attendance in other subject area classes which created a source of friction between Title I participants and regular subject teachers. It was reported that students were sometimes ridiculed by their classmates when pulled from regular classes. Prestige of Title I services, student attitude toward the program, and the social stigma some students experienced as program participants were indicated by teachers as factors mitigating against teaching efforts. However, in many cases, teachers reported having noted a positive change in student attitude throughout the year when students had begun to experience success in program work. In these instances, positive student attitudes appeared to be a direct outcome of the efforts of teachers who relayed to students a strong teaching commitment, good rapport, and the establishment of a warm, educational classroom environment.

Interview and observation findings revealed that poor student Title I attendance continued to be experienced and to be related to a school-wide high absenteeism rate. Parental involvement continued to be low despite efforts to encourage participation through school meetings and the on-going phone calls and memos of teachers to individual parents. Teachers also mentioned that paperwork continued to be a time-consuming burden. The coordination of efforts of Title I reading teachers and other subject teachers were reported to be ongoing. Evaluation findings revealed, however, that because of the structure of high school organization, the teaching effort was fragmented between subject areas making it almost impossible for teacher coordination and

follow-up of students' development throughout the curriculum areas.

In most cases, rooms appeared to be attractive, well lit, and well-stocked with materials. Evaluators noted, however, that the quality of displays evidenced in classrooms varied between programs. While in some, the quality and variety of teacher and student-prepared displays appeared to be excellent, in a few schools observations revealed that displays did not seem to be an important consideration in program activities.

Evaluation findings revealed that student attendance, parental involvement, prestige of Title I, scheduling difficulties, and difficulties of coordination of Title I programs in the total school environment, were areas of focus for continuing attention by Title I teachers and personnel.

In all cases, teachers commented upon the strong support provided by the Title I administrative team in both the classroom context and in-service training. The opinion of teachers with respect to in-service days was positive with some teachers expressing interest in future workshops dealing with innovative teaching approaches presented by reading specialists and/or university educators.

In most instances, teachers appeared to be well-organized. Interaction between program staff, school staff, and school administration was reported to have assisted program implementation, and teachers and Title I personnel provided much energy throughout the school in the establishment of new programs and the solidification of existing programs.

Performance Objectives

In addition to the performance objectives in reading, which were the same as those for the "Reading Only" program, four additional sets of language arts objectives were addressed by this program. These included Grammar, Usage, Mechanics, and Composition. For purposes of identification in the tables which follow the topics of the objectives in each set are presented below.

GRAMMAR

1. Writing of four types of sentences
2. Definition of four types of sentences
3. Writing of five simple sentences
4. Construction of compound sentences
5. Demonstration of complex sentence knowledge
6. Identification of subject and verb
7. Demonstration of subject and verb knowledge
8. Identification of parts of speech in sentences
9. Identification of parts of speech in written work
10. Identification of common and proper nouns
11. Changing common to proper nouns
12. Written use of pronoun
13. Demonstrate knowledge of personal pronouns
14. Demonstrate knowledge /use of adjective
15. Demonstrate knowledge /use of descriptive and linking adjective
16. Demonsrtate use of word endings to form comparative - superlative
17. Use of action and linking verbs
18. Use of transitive and intransitive verbs
19. Use of "more" and "most"
20. Demonstrate use of adverbs to change meaning
21. Use of adverbs to answer questions
22. Identification of prepositions
23. Use of prepositions
24. Identification of conjunctions
25. Use of conjunction in forming compound sentences
26. Knowledge of words to introduce dependent clauses
27. Write series of independent clauses
28. Write series of dependent clauses
29. Written identification of subjects and verbs in dependent and independent clauses
30. Identification of prepositional phrases
31. Use of prepositional phrases as adjectives
32. Use of prepositional phrase in adverb sense

33. Identification of direct object of verb
34. Identification of indirect object of verb
35. Demonstrate use of direct and indirect object

USAGE

1. Difference between singular and plural
2. Identification of singular and plural noun forms
3. Identification of singular and plural verb forms
4. Use of verb forms with singular and plural
5. Use of verb forms with nouns and pronouns
6. Use of three tenses - regular verbs
7. Use of three tenses - irregular verbs
8. Use of auxilary verb

MECHANICS

1. Use of comas
2. Use of end punctuation
3. Formation of contractions
4. Use of contractions
5. Identification of possessive nouns and pronouns
6. Use of possessive nouns and pronouns
7. Word identification
8. Written use of quotations
9. Use of hyphen to divide words

COMPOSITION

1. Identification of topic sentence
2. Use of topic sentence
3. Identification of parts of social letter
4. Identification of parts of business letter
5. Construction of a social letter
6. Construction of a business letter
7. Addressing envelopes - block form

Achievement of Performance Objectives - High School Reading/Language Arts

In the Reading/Language Arts group eight sets of objectives were addressed. The achievement of these are presented in tables 5 through 12. In TABLE 5 the accomplishment of each of 35 objectives in grammar shows that only five (1, 2, 6, 7, 10) were mastered by 50% or more of the total of 469 pupils for whom data was provided, with two (6, 10) being achieved by over 60%. Eleven of

the objectives in this area were met by between 1% and 10% of the students, nine were met by between 10% and 20%, six were met by 20% to 30% and three were met by 40% to 50%, and five as mentioned above were met by more than 50%. A summary of these results is presented in TABLE 5 which shows that two of the eight program schools achieved over 35% of the 35 objectives, four achieved more than 20%, and two fell below a 10% achievement level. The overall accomplishment of objectives related to grammar for this group was found to be 23%. Data provided with reference to the second group of objectives were related to language "usage" and indicated (TABLE 6) that of eight, one (1) was met by over 50%, one (2) by 42%, two (3, 4) by 34%, and four by 25% or less. The overall achievement for these objectives was found to be 32% of that which might have been possible if all had been achieved.

In "mechanics" (TABLE 7) twenty-six objectives were addressed. Of these only eight, (2, 12, 13, 14, 15, 16, 26, 27) were accomplished by more than 30% of the 469 students with four (14, 16, 26, 27) being mastered by 40% or more. Only one of these (27) was met by more than 50 percent. The majority of the others were mastered by fewer than 20% of those in this program. In two of the schools achievement exceeded 40% and in two others it exceeded 30 percent. Two of the eight schools achieved only 5% or fewer of the objectives bringing the overall achievement rate in "mechanics" for this program group to 25%.

The fourth set of objectives, having to do with "composition" was treated with varied stress in each of the eight schools. Only one school treated all seven objectives in this set while two addressed only two. The first objective in the set was achieved

TABLE 5

Final Achievement of Individual Performance Objectives
II. High School - Reading/Language Arts

Grammar

N = 469

School	No. of Pupils	Objectives 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Boston Eng.	101	8	4	74	62	31	76	67	11	8	83	72	20	--	28	--	6	48	--	51	13
Boston Tech.	40	37	34	32	2	1	33	17	22	10	36	12	21	2	34	2	--	8	2	2	--
Boston Tr.	88	68	65	55	61	25	61	53	36	34	58	47	47	36	47	26	49	30	7	46	12
Copley Sq.	45	10	9	11	--	--	8	3	5	2	9	4	1	--	10	--	11	3	--	--	--
Dorchester	37	27	30	20	1	1	29	28	--	--	27	24	5	1	13	8	--	4	2	1	--
Madison Pk.	71	52	56	12	13	11	57	52	2	1	60	46	24	18	10	--	1	46	3	--	--
So. Boston	50	3	--	10	--	--	1	1	--	--	9	--	--	--	3	--	--	--	--	--	--
Umana	37	36	36	28	34	27	21	17	12	8	22	20	12	8	29	27	16	1	--	11	3
TOTAL	469	241	234	242	173	96	286	238	88	63	304	225	130	65	174	63	83	140	14	111	28
Percentage		51	50	52	37	20	61	51	19	13	65	48	28	14	37	13	18	30	3	24	6

TABLE 5
(Continued)
Final Achievement of Individual Performance Objectives
II. High School - Reading/Language Arts

Grammar

N=469

School	Objectives (Continued)															Tot. Poss. Achievement	No. of Obj. Achieved	Percent of Achievement
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35			
Boston Eng.	16	35	14	31	47	--	27	--	33	--	--	--	--	--	--	3535	865	24%
Boston Tech.	5	27	8	31	1	--	1	--	--	1	--	--	--	--	--	1400	381	27%
Boston Tr.	14	40	34	28	31	16	3	3	11	13	--	12	30	13	13	3080	1124	36%
Copley Sq.	2	7	5	--	--	1	1	--	--	5	4	4	--	--	--	1575	115	7%
Dorchester	1	12	32	19	--	--	--	--	--	27	2	1	--	--	--	1295	315	24%
Madison Pk.	--	1	2	17	18	13	5	12	7	--	--	--	--	--	--	2485	539	22%
So. Boston	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1750	27	2%
Umana	19	21	15	5	23	2	--	1	--	8	1	--	12	3	3	1295	481	37%
TOTAL	28	143	110	131	120	32	37	16	51	54	7	17	42	16	16	16415	3847	23%
Percentage	6	30	23	28	26	7	8	3	11	12	1	4	9	3	3		23%	

TABLE 6

Final Achievement of Performance Objectives
II. High School - Reading/Language Arts

N = 469

Usage

School	No. of Pupils	Objectives 1	2	3	4	5	6	7	8	TOTAL	Percent of Achievement
Boston English	101	72	54	45	25	--	5	--	--	201	25%
Boston Technical	40	1	1	--	--	--	--	--	--	2	1%
Boston Trade	88	60	51	46	28	36	35	37	15	308	44%
Copley Square	45	1	--	--	--	--	4	--	--	5	1%
Dorchester	37	31	27	19	19	5	10	2	2	115	39%
Madison Park	71	38	31	24	4	6	37	25	23	188	33%
South Boston	50	13	--	--	--	--	--	--	--	13	3%
Umana Technical	37	32	33	26	13	6	26	2	16	154	52%
TOTAL	469	248	197	160	160	53	117	66	56	1057	32%
Percentage		53	42	34	34	11	25	14	12	32%	

TABLE 7

Final Achievement of Individual Performance Objectives
II. High School - Reading/Language Arts

Mechanics

N=469

School	No of Pupils	Objectives																			
		1	2	3	4	5	6	7	8	9	12	13	14	15	16	17	18	19	20	21	22
Boston Eng.	101	28	23	13	8	2	--	40	13	9	24	5	24	5	54	33	44	14	21	19	33
Boston Tech	40	13	31	27	18	1	1	--	--	--	17	19	19	16	10	6	11	17	17	16	6
Boston Tr.	88	9	18	26	27	16	13	7	10	28	43	36	44	43	35	21	32	25	34	34	35
Copley Sq.	45	--	--	--	--	3	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--
Dorchester	37	23	23	15	12	9	6	--	1	1	32	28	24	24	14	18	24	18	1	--	1
Madison Pk.	71	45	49	6	5	33	34	45	42	33	50	51	55	54	50	7	18	19	7	2	5
So. Boston	50	10	--	6	4	--	--	--	--	--	2	3	1	1	1	2	--	--	1	--	6
Umana	37	4	31	23	18	12	7	24	14	8	4	2	22	9	29	22	6	1	6	32	29
TOTAL	469	132	175	116	92	76	65	96	61	46	173	144	189	152	193	109	135	94	87	103	115
Percentage		28	37	25	20	16	14	20	13	10	37	31	40	32	41	23	29	20	19	22	25

TABLE 7
(Continued)

Final Achievement of Individual Performance Objectives
II. High School - Reading/Language Arts

Mechanics

N = 469

School	Objectives (Continued) 23	24	25	26	27	28	Tot. Poss. Achievement	No. of Obj. Achieved	Percent of Achievement
Boston Eng	5	--	--	44	62	18	2626	541	21%
Boston Tech	10	8	7	3	4	--	1040	277	27%
Boston Trade	25	33	33	36	51	17	2288	866	38%
Copley Square	--	--	--	20	20	--	1170	45	4%
Dorchester	1	--	--	17	11	5	962	308	32%
Madison Park	15	5	--	54	54	34	1846	772	42%
South Boston	--	--	--	10	13	--	1300	60	5%
Umana	5	4	22	9	26	11	962	380	40%
TOTAL	81	50	62	193	241	85	12194	3065	25%
Percentage	17	11	13	41	51	18		25%	

by 28% of the program students and the second and seventh by 24% each. Only one objective, the third, was met by more than 30% while one objective, number six, which was treated in only two schools was mastered by only 2 percent. On a program wide basis the overall achievement was found to be 19% on this set (TABLE 8).

In "phonic analysis" usable data on the six objectives was available from only three of the eight schools. In spite of this three of the objectives (4, 6, 9) were achieved by 20% or more of the program students with the other three (5, 7, 8) each being achieved by at least 16 percent. Overall achievement for this set on the basis of data provided was found to be 20% . When only the three schools which had actively engaged in addressing these objectives were considered however (TABLE 9) the overall percentage of achievement was 57%.

Three objectives in "structural analysis" were, according to data provided and shown in TABLE 10 , addressed by five of the eight schools. Analysis shows that achievement in one school was 67% and in another 49% of that which might have been expected. The other schools had achievement of less than 25 percent. The total percentage of achievement on these objectives for all eight schools was 27% (TABLE 12). When only the five schools submitting data were considered the achievement of the objective was found to be 49%.

Of fourteen comprehension skills addressed by six of the eight schools two were addressed by over 50% of the 361 students in these schools (TABLE 11) and two were achieved by fewer than 10%. Overall achievement by these schools was found to

TABLE 8

Final Achievement of Performance Objectives
II. High School Reading/Language Arts

Composition

N = 469

School	No. of Pupils	Objectives 1	2	3	4	5	6	7	Total Poss.	Total Ach'd.	% of Ach.
Boston Eng.	101	36	18	11	--	--	--	17	707	82	12%
Boston Tec.	40	13	23	--	--	--	--	--	280	36	13%
Boston Tr.	88	25	13	28	15	11	--	32	616	124	20%
Copley Sq.	45	3	2	22	--	23	--	23	315	73	23%
Dorchester	37	31	17	11	11	--	4	--	259	74	29%
Madison P.	71	43	36	40	29	5	5	4	497	162	33%
South Bos.	50	1	--	6	--	--	--	--	350	7	2%
Umana	37	3	4	29	22	---	--	35	259	93	36%
TOTAL	469	132	111	147	77	39	9	111	3283	626	19
Percentage		28	24	31	16	8	2	24		19	

TABLE 9

Final Achievement of Performance Objectives
II. High School Reading/Language Arts

Phonic Analysis

N = 165

School	No. of Pupils	Objectives 4	5	6	7	8	9	Total Poss.	Total Ach'd.	% of Ach.
Boston Tec.	40	9	9	9	8	8	--	240	43	18%
Boston Tr.	88	75	67	73	59	53	58	528	385	73%
Umana	37	24	14	35	12	12	35	222	132	59%
TOTAL	165	108	90	116	79	73	93	990	560	57
Percentage		65	55	70	48	44	56		57	

TABLE 10

Final Achievement of Performance Objectives
II. High School Reading/Language Arts

Structural Analysis

N=209 School	No. of Pupils	Objectives 2	3	5	Tot. Poss.	Total Ach'd	Percent of Achievement
Boston Tech.	40	34	38	36	120	108	9%
Boston Trade	88	56	64	57	264	177	67%
Copley Square	45	4	10	14	135	28	21%
South Boston	50	3	6	7	150	16	11%
Umana	37	21	20	13	111	54	49%
TOTAL	209	118	138	127	780	383	49
Percentage		56	66	61		49	

be 29% however on a program wide basis, with all eight schools and 469 students a 22% achievement level was obtained.

The final set of five objectives addressed by this group were related to study skills. Once more two schools did not provide performance objective data and only two addressed all five. The first was achieved by 44% of the students in the program and one school achieved 56% overall achievement of these objectives. Three had achieved 31-33% and two fell below 20 percent. Program overall achievement on these objectives was 24 percent.

When only the six schools submitting data (TABLE 12) were considered however an overall achievement of 31% was found.

TABLE 11

Final Achievement of Individual Performance Objectives
II. High School - Reading/Language Arts

Comprehension Skills

N=361

School	No. of Pupils	Objectives 1	3	4	6	7	9	10	13	14	15	18	20	21	24	Tot. Pos. Ach'd	Tot. Ach'd	Percent of Achievement
Boston Eng.	101	45	37	42	60	23	47	23	54	16	7	1	12	--	3	1414	370	24%
Boston Tech.	40	40	40	39	23	--	17	21	1	5	--	--	--	--	--	560	186	31%
Boston Tr.	88	56	50	45	52	41	53	35	41	42	38	25	11	14	44	1232	547	41%
Copley Sq.	45	4	8	1	8	1	5	--	--	--	--	--	1	--	1	630	29	4%
So. Boston	50	30	10	2	32	--	16	3	4	4	--	--	--	--	1	700	102	14%
Umana	37	23	11	5	32	32	14	33	15	8	12	9	1	2	13	518	210	38%
TOTAL	361	198	156	134	207	97	152	115	115	76	57	35	25	16	62	5054	1445	29
Percentage		55	43	37	57	27	42	32	32	21	16	10	7	4	17		29	

TABLE 12

Final Achievement of Performance Objectives
II. High School - Reading/Language Arts

N=361 Reference Study Skills

School	No. of Pupils	Objectives 1	2	5	6	7	Tot. Poss.	TOTAL	Percent of Achievement
Boston Eng.	101	73	51	31	--	--	505	155	31%
Boston Tech.	40	31	31	--	--	--	200	62	31%
Boston Tr.	88	31	28	41	27	20	440	147	33%
Copley Sq.	45	11	11	--	--	1	225	23	10%
So. Boston	50	26	21	1	--	--	250	48	19%
Umana	37	35	34	14	13	26	185	122	66%
TOTAL	361	207	176	87	40	47	1805	557	31
Percentage		44	38	19	9	10		31	

Assessment of Writing Skills - Reading/Language Arts

As part of the evaluation of the writing component of the program, a writing skills inventory was administered to a sample of students participating in the program. The purpose of the Writing Skills Inventory was to assess the total impact of the language arts component of the Title I program upon student writing abilities and to monitor the improvement of these abilities. This inventory, which involved the collection of pre and post writing samples from randomly selected program students, took the form of a written essay, which was administered at the beginning of the year and at the completion of the program to determine the extent of gain. Approximately one third of the total population of student participants were sampled. These students were asked to write about their favorite music form and to submit this essay, through their teachers, to the evaluation staff. Pre and post-test essays were then scored using a specially designed scale to determine the extent of improvement in writing skills over the course of the years and compared for evidence of growth. This analysis, however, was not intended to address the issue of how these students compared to average students, nor to measure the magnitude of any losses or gains.

Analysis of the inventory was limited to some extent because one school started too late for a meaningful pre test of the intended sample of students taking part in the program, and approximately half (121 of 228) completed and returned both the pre and post tests.

Analysis of ratings of those students returning both tests indicated that 41% of the target students were successful in mak-

ing gains in their writing abilities, while 8% did not show measurable change, and 51% showed no improvement. A group of non-participating students was also tested for comparison purposes and test results were used in the initial analysis, however, because of the low response rate (less than 10%), the results obtained by this group have not been used for this report.

Because of various program difficulties and factors mitigating against accurate measurement this objective goal was not fully achieved in terms of the instrument used.

High School Work Study

Interviews with the program director throughout the year indicated that the Title I reading and mathematics program for work-study students at the Boston High School had been implemented according to the planned schedule. Initial tests were used in the early stages of the program to determine eligibility for mathematics and reading class participation. The program was operating in the school and individualized programs of remediation established by mid-September.

The program in reading and mathematics was designed to fit into the overall school schedule which consisted of two sessions of four class periods and two homerooms each conducted daily. The first session was held from 8:00 to 11:15, and the second session from 12:45 to 4:00. Four reading and four mathematics teachers were responsible for four classes each in each session. A maximum of 15 students were enrolled and attended each class which essentially consisted of basic core content. The Iowa Silent Reading Test, the California Achievement Test, or teacher-constructed instruments were used in diagnosing the individual needs of each student in these two areas.

According to continued interview findings initial job placements were generally determined according to grade level, with the youngest students being assigned to non-skilled jobs such as dishwashing, delivering, or cafeteria work. The importance of skills in reading and mathematics was stressed throughout the year. Students, according to interviews, advanced to jobs re-

quiring more skills when they had shown themselves to be hard workers, dependable, polite, and academically capable. The evaluators were informed that students remained at jobs on an average of one year each, although students with reading, writing, or mathematics skills and who were well suited for any one position sometimes stayed four years.

Communication with parents was maintained as a result of the school's stated teacher responsibility for sending home weekly progress reports indicating student attendance, performance, and attitudes toward work and school. Homeroom teachers in the school were required either to visit or phone each student's job supervisor once a week, and to closely monitor attendance at school and work on a daily basis. With every third absence, letters were sent home to parents requesting a note in return explaining a student's absence. On an average more than 90% of students were employed throughout the year. The supervisor reported that this year there had been greater demands placed upon the school by potential employers than could be satisfied from the school student population.

Strict supervision, according to the headmaster, was conducted by homeroom teachers in liaison with students' job supervisors, contributed to the high attendance rate of students. Further, the school's compulsory 75% class attendance requirement provided additional motivation for high student attendance rates.

During interviews the job supervisor reported that student daily attendance had been approximately 85%, indicating that attendance rates had fallen below that in previous years after the

federally regulated quota system specifying racial and sexual balance had been established. Evaluators were informed during various interviews that although a large number of students requested to attend this school, enrollment during the year had included students whom they believed were not specifically interested in the school's program offerings. Interviews with the job supervisor and other staff members revealed that approximately 7% of students were unemployable either because of age or physical or emotional limitations. The evaluators were also informed however that approximately 93% of the students who attend school regularly had been placed in jobs between the beginning and middle of the school year. Businesses into which students were placed were diversified, and included a bank and an insurance company. Students worked on an average of 20 hours per week and were paid hourly wages between $2.65 and $5.00. The project director mentioned that attempts were made throughout the year to place unemployed students.

The design of the workstudy reading and mathematics program did not involve the assistance of teaching aides, however, interviews during the year revealed that a college collaborative had provided both reading and mathematics tutors for program students. Students' needs were diagnosed on a continuing basis through the use of the Iowa Silent Reading, The California Achievement or teacher made tests. Findings indicated that some pupils with language problems had difficulty with materials particularly in mathematics. Difficulty was also experienced by these students in responding to standardized test questions. Students were

grouped both homogeniously and heterogeniously in classes according to needs. Continued observations indicated that teachers were involved with the maintenance of student records on an on-going basis. Efforts were also made to provide and augment alternative reading matter of a historical nature to eleventh and twelfth grade students. It was reported however, that despite the variety of reading materials available, it remained a difficult task to provide students with reading materials pertinent to age, student interests, and reading abilities. Scope magazine was found to be useful in this respect and was used in the reading program every week.

Interviews and observations also indicated that mathematics and reading remediation had been geared specifically to students' on-the-job experience, and to needs pertaining to work situations. Title I teachers according to the program director, frequently conferred with other staff members to discuss student progress as an ongoing process in addition to regularly scheduled staff meetings.

Evidence of the program staff's dedication and commitment to providing students with an alternative educational environment to the traditional approach was evidenced by interview and observation findings and appeared to be a strong force in the continuing success of the work study design.

Performance Objectives

Although findings indicated that performance objectives in reading were used as a guide to content and structure, and that on-going testing on these objectives was maintained, data regarding them was not provided in time for inclusion in this report.

MIDDLE SCHOOL

DESIGN I

FINDINGS

Evaluation findings revealed that a total of 33 reading teachers and 33 aides provided services to a total of 1300 students in seventeen middle schools throughout the 1978-1979 school year. Fourteen schools had either one or two teachers and three, four, and five teachers were employed in the other schools respectively.

Interviews with teachers revealed that several schools were not assigned aides at the beginning of the year, but by mid year all aides had been assigned, testing procedures had been completed, student reports compiled, and selected students were participating in individualized programs of instruction. Daily reading classes of 45 minutes duration with a class size of eight students per period were implemented throughout the year and the pupil/teacher ratio in program schools was approximately 38 to 40 pupils per teacher. One teacher indicated that student enrollment was maintained at 42 to accommodate student turnover, while another teacher taught a total of 34 students in addition to providing daily services to two students with learning disabilities on a one to one basis.

Several program schools arranged for reading classes to be held at regularly scheduled hours so that students would not miss other class time. These arrangements were not however made at all schools.

Metro 70 scores, geocodes, and student records were generally used to assess student eligibility for the program. All students scoring below the 41st percentile on the Metro 70 were to be considered, but space and available staff limited the inclusion of a number of students who qualified on that basis. Geocode criteria were cited as being unfair to students who were determined as needing help on the basis of other criteria.

The Sucher-Allred Reading Placement Inventory and/or the Dolch Word List were used to assess the reading levels of participating students and plan individualized instruction on a continuing basis throughout the year. On-going testing revealed considerable differences in achievement of pupils. Interviews with teachers indicated concern regarding the wide range in student abilities. Teachers expressed the opinion that the basic weaknesses of students were found less in phonetics and word attack skills than in reading comprehension and vocabulary skills. Some teachers regarded testing as a time-consuming process, and also expressed concern regarding excessive testing as well as possible invalid test results because of fluctuating testing conditions.

By mid-year all initial testing procedures were completed, test records compiled, and selected students were participating in individualized programs of instruction. In all schools, evaluators observed that student files had been established early in the year and that they were maintained in accordance with Title I guidelines. Most teachers developed reading activities that not only provided for each student's individual needs, but for the

development of a sequence of instruction which permitted the channeling of students into small activity units devoted to the achievement of overall and individual student goals. Activities in some schools, according to interview findings, were very much teacher-directed on a small student group basis although efforts were made throughout the year toward achieving student independence.

As the year progressed and student skills improved, teachers' efforts in this direction were seen in a wide variety of approaches to individual and small group instruction in which games, films, tapes and novel teaching materials both of a commercially prepared and teacher-made nature were used.

The great quantity of reading materials available for student use in the program was praised by several teachers. Evaluators observed the Random House Reading Program and Workbook, Reading booster cards, work wheels, word pacers, Globe's Grammar Workbooks, the TARGET series, Loft Specific Skills series, Booster Plus Four, Satellite Books, Reader Workshop I, Reader's Digest Decoding Point 31 among many others, and recreational items, library books, and paperbacks being used in reading classes. The evaluators observed that, in many cases, teachers stressed the importance of the use of the dictionary and its function and practical use by students with reading problems. Opinions regarding the various available materials varied, however, from teacher to teacher. Some reported that there was insufficient low vocabulary and high interest reading materials provided, while others said that they were satisfied with their quality. Others expres-

sed a belief that they were appropriate to the age and reading levels of their students, and some expressed the opinion that too much standardized material was being used. A few teachers also mentioned that many of their students are Spanish-speaking or bilingual and that only limited materials had been provided for this group. Observations however, revealed that Title I classes with bilingual pupils were taught both on an individual and small group basis using limited but appropriate materials depending on subject matter and pupil weaknesses. Program instruction was found to rely heavily upon commercially prepared workbooks, worksheets, and related materials in a few of the program schools. In some teachers had developed and made instructional materials correlated to remedial teaching approaches and geared to the infusion of "real life" experiences into program activities.

In addition to on-going diagnostic testing to determine individual pupil weaknesses the achievement of performance objectives was analyzed as the year progressed, and pre-post standardized tests were administered to determine overall program progress. The recording of individual pupil performance through performance objectives was found to be on-going throughout the year and often appeared to give direction to program planning and teaching. The standardized testing program however did not appear to meet with as much teacher approval in measuring the achievement of students with reading problems as did the use of performance objectives.

Interview findings revealed that many teachers reviewed testing skills in the weeks before the test and provided opportunities for students to attack questions similar to the new Metro 78 Achievement Test. Many teachers expressed concerns regarding the

effectiveness of this new test in measuring student gains.

Adequate space for reading centers continued to be a problem in a few schools throughout the year. Observations at mid-year indicated that in two schools, two classes were operating in less than satisfactory conditions, with one class being taught in a corridor without access to electrical outlets and subject to the general noise of the school. A second class was being conducted in the school's basement without natural light and subject to distracting noise. The noise level was also a problem at one school for two reading teachers who shared one big room. Although dividers had been set up, the teachers said that they would have prefered to have a wall erected. The evaluators also observed that reading rooms were small and crowded in two other schools, one of which lacked a chalkboard. By the end of the year the problem had been remedied in one school however the "corridor" and "basement" rooms were still being used.

One teacher who had to transport materials and equipment every period to any available location, including the cafeteria expressed frustration over the fact that a major portion of class time had been spent in setting up rooms and getting students settled. Teachers stated that continued efforts were made by the program supervisor toward the alleviation of problems related to classroom facilities.

Reading workshops, led by program supervisors were held during the first month of the school year and were considered by many teachers to be very helpful and several said that they would like to see more such meetings. Four additional meetings were held.

During the year teachers also suggested that additional in-service training workshops might be considered in the future so that teachers with Spanish-speaking students would be better trained in attending to this group's needs.

The limited amount of training available within the program for inexperienced teachers was considered to be a problem to a few of the program staff. An additional problem was expressed by a principal who expressed the opinion that Title I reading teachers should assume the same duties as other teachers and who commented that present regulations contribute to the isolation of Title I Teachers from the school and tends to lower staff morale.

The needs of Spanish-speaking students were not, according to teacher interviews, addressed directly in the Title I program objectives. Teachers whose classes were composed largely of Spanish-speaking or bilingual students who were ineligible for bilingual education indicated that the needs of these students related basically to English language remediation and to the teaching of sight vocabulary rather than to specific reading remediation problems.

Evaluation findings revealed that teachers who participated in the Performance Objectives Committee with Title I administrators and parents were pleased to be given the opportunity to contribute to the development of middle school objectives.

Once again, problems experienced throughout the year in the implementation of the Title I program were said to be related to poor attendance, scheduling difficulties, inordinate amounts of paperwork, lack of parental involvement, low program prestige among students, and teacher and student dissatisfaction with

classes that had been missed in other subject areas because of student participation in Title I classes.

School principals reported that Title I Community Liaison persons had assisted schools by encouraging parents to join local Racial Ethnic Councils, and although meetings were organized by these liaison people throughout the year, parent attendance was poor. Despite reported ongoing efforts by teachers and principals throughout the year, evaluation findings indicated that expectations had been low with respect to improved parent involvement.

Title I teachers and the Title I administrative team worked together according to interview and observation findings, in providing program services to middle school students throughout the year, and in the majority of cases Title I program instruction was conducted independent of other school-based reading programs. A growing concern was expressed by teachers and principals for the need to develop an integrated school-wide reading policy utilizing all available funding sources. According to interviews and observations, this did occur in a few Title I program schools during the year. In one, a teacher reported close interaction with the school's reading coordinator in working together with subject area teachers in the organization of a school-wide reading program utilizing Title I services for eligible students most in need of help in reading.

Observations throughout the year revealed thorough attention to planning, and to the implementation of individualized programs geared to meet the needs of students. Staff cooperation was considered to be good in most schools although reading teachers at

one expressed the opinion that a lack of communication with regular subject teachers limited program effectiveness. Several principals praised their teachers for the work which was done throughout the year. Support from the Central Title I staff was also noted as being "excellent" during the entire period of program implementation.

Performance Objectives - Middle School

The terminal performance objectives in reading for middle schools are concerned with phonic analysis, structural analysis, comprehension skills, reference and study skills. These objectives, stated in detail in the Department of Title I Programs outline of performance objectives for middle schools have been listed below only by the particular aspects of reading, or skill, with which they deal rather than the criterion used in determining achievement and the extent of mastery required.

PHONIC ANALYSIS

1. Initial consonants
2. Final consonants
3. Medial consonants
4. Blends
5. Digraphs
6. Long and short vowels
7. R-controlled vowels
8. Diphthongs
9. Hard and soft (c and g)

STRUCTURAL ANALYSIS

1. Syllabication
2. Syllabication
3. Identification of root words
4. Singular and plural forms
5. Identification of prefixes and suffixes
6. Comparisons
7. Affixes
8. Contractions
9. Possessives

COMPREHENSION SKILLS

1. Following written directions
2. Vocabulary development: (synonyms - antonyms)
3. Context clues - words with multiple meanings
4. Context clues - appropriate meanings: unknown words
5. Classification
6. Locating information in a paragraph
7. Pronoun - antecedent
8. Punctuation application in reading
9. Main idea - expressed
10. Summarizing a paragraph
11. Sequencing
12. Cause - effect relationships
13. Drawing conclusions
14. Predicting outcomes

REFERENCE AND STUDY SKILLS

1. Alphabetical sequencing of words
2. Use of dictionary: definition - pronunciation
3. Outlining
4. Locate information

Achievement of Performance Objectives - Middle School - Design I

Achievement of performance objectives in each of the three program designs is presented in the following description.

In Design I four sets of objectives were addressed. The first set consisted of nine objectives, related to Phonic Analysis (TABLE 13). Of these the first and fourth were mastered by 90% and 94% of the 947 students participating in this design in twelve program schools . Each of the other objectives in phonics were met by above 80% of the participants. Of the schools participating six achieved an overall mastery of above 90% with none going below 55%. Objectives concerned with phonics were achieved on a design-wide basis by 86% of the students.

The second set of objectives for this design group was re-

TABLE 13

Final Achievement of Performance Objectives
Design I Middle Schools

N = 947

School	No. of Pupils	Phonic Analysis 1	2	3	4	5	6	7	8	9	TOTAL	Percent of Achievement
Cleveland	167	115	115	110	160	139	133	112	155	134	1173	78%
Curley	79	78	78	78	71	72	77	76	65	76	671	94%
Dearborn	35	34	33	30	33	33	29	31	32	32	287	91%
Edwards	79	74	76	75	67	65	59	62	58	64	600	84%
Gavin	163	134	115	125	157	148	155	147	153	155	1289	89%
King	79	72	72	65	70	64	59	55	48	49	554	78%
Mackey	71	68	66	67	66	65	64	39	38	66	539	84%
Michelangelo	39	39	39	39	39	39	39	39	36	37	346	99%
Roosevelt	43	43	43	43	30	23	10	14	2	6	214	55%
Taft	83	83	83	81	81	77	81	81	74	77	718	96%
Umana	31	31	31	31	31	31	29	31	31	30	276	99%
Wheatley	78	78	78	77	77	73	76	72	70	76	677	96%
TOTAL	947	849	829	821	882	829	811	759	762	802	7344	86%
Percentage		90	87	86	93	87	85	80	80	84	86%	

TABLE 14

Final Achievement of Performance Objectives
Design I Middle Schools

N = 947

School	No. of Pupils	Structural Analysis 1	2	3	4	5	6	7	8	9	TOTAL	Percent of Achievement
Cleveland	167	132	115	98	103	116	103	112	104	67	950	63%
Curley	79	64	43	45	45	43	63	63	61	46	473	67%
Dearborn	35	32	26	24	20	17	19	19	15	9	181	57%
Edwards	79	76	72	67	69	65	79	63	62	53	606	85%
Gavin	163	163	117	142	144	138	156	139	147	117	1263	86%
King	79	65	39	38	28	39	37	36	44	15	341	48%
Mackey	71	61	55	61	57	52	36	33	42	46	443	69%
Michelangelo	39	38	35	34	37	32	35	24	38	38	311	89%
Roosevelt	43	33	36	14	22	12	30	29	30	26	232	60%
Taft	83	83	64	78	78	76	57	70	66	44	616	82%
Umana	31	31	30	30	31	30	31	31	31	25	270	97%
Wheatley	78	78	74	75	77	77	63	62	63	42	611	87%
TOTAL	947	856	706	706	711	697	709	681	703	528	6297	74%
Percentage		90	74	74	75	74	75	72	74	55	74%	

TABLE 15

Final Achievement of Individual Performance Objectives
Design I Middle Schools

N = 947

School	No. of Pupils	Comprehension Skills																TOTAL	Percent Achieve
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	25		
Cleveland	167	61	105	107	121	41	115	19	10	86	13	67	126	108	51	60	65	1155	43%
Curley	79	74	45	76	56	77	76	76	68	74	74	77	64	58	37	67	68	1067	84%
Dearborn	35	15	31	33	13	14	29	1	12	31	17	4	19	1	6	1	1	228	41%
Edwards	79	70	60	60	63	60	65	63	50	53	51	44	58	53	42	43	28	863	68%
Gavin	163	146	145	104	108	106	97	42	36	111	70	61	127	90	89	70	122	1524	58%
King	79	70	62	45	34	31	48	21	18	29	23	23	36	18	15	9	31	513	25%
Mackey	71	49	53	35	32	51	67	47	60	45	37	29	42	22	27	31	47	674	59%
Michelangelo	39	39	38	37	37	38	34	36	17	38	19	11	35	37	24	24	37	501	80%
Roosevelt	43	28	36	22	23	8	31	--	--	23	--	--	2	--	9	--	34	216	31%
Taft	83	73	76	46	28	55	22	31	54	62	25	17	50	31	28	26	57	681	53%
Umana	31	29	28	27	29	28	31	29	1	31	--	--	30	31	29	27	31	381	77%
Wheatley	78	49	55	52	35	73	61	42	31	72	63	30	57	44	38	38	70	810	65%
TOTAL	947	703	734	644	579	582	676	407	357	655	392	363	646	493	395	396	591	8613	
Percentage		74	78	69	61	61	71	43	38	69	41	38	68	52	42	42	62	65%	

TABLE 16

Final Achievement of Performance Objectives
Design I Middle Schools

N = 947

School	No. of Pupils	Reference Study Skills 1	2	3	4	TOTAL	Percent of Achievement
Cleveland	167	130	85	24	34	273	41%
Curley	79	79	72	9	75	235	74%
Dearborn	35	35	--	--	--	35	25%
Edwards	79	61	54	34	28	177	56%
Gavin	163	115	139	56	83	393	60%
King	79	52	47	--	--	99	31%
Mackey	71	69	68	21	60	218	77%
Michelangelo	39	38	38	4	26	106	68%
Roosevelt	43	37	33	5	22	97	56%
Taft	83	73	67	6	6	152	46%
Umana	31	31	30	24	26	111	90%
Wheatley	78	75	49	22	32	178	57%
TOTAL	947	795	682	205	392	2074	56%
Percentage		84	72	22	41	56%	

DESIGN II - NEW CENTURY LABORATORY

FINDINGS

Approximately 420 students were reported to have been enrolled in the New Century Reading Laboratory Program that operated in three Boston middle schools throughout the 1978-1979 school year. Six teachers and six aides implemented this program based on the principles of B.F. Skinner. Interview findings revealed teacher enthusiasm for the New Century program which they believed provided a well-organized sequential development of student instruction, ongoing reinforcement testing of student work, a highly formalized recording procedure of student progress, and a strong motivational reward system.

The laboratory program was well established in the three schools and operated under the supervision of teachers who appeared to be competent and well conversant with program procedures. The teacher-student ratio was reported to be one teacher to fourteen students, and five daily classes each consisting of 28 students were supervised by two aides and two teachers.

Program enrollment varied from school to school and reached approximately 140 in each. Design I and II format Title I classes were implemented in two of the three schools. Students were selected on the basis of their Metro 70 reading scores as well as various other informal criteria denoting need in this area. Some teachers interviewed said that the Sucher-Allred Reading Placement Inventory had also been used to identify strengths, weaknesses, and student reading level. In a few

schools teachers reported that students who were Title I eligible were not receiving program services because of inadequate space and insufficient personnel.

Evaluation findings throughout the school year revealed that Title I guidelines with regard to individualized teaching, maintenance of student records and files, student selection, and testing had been followed. Teachers indicated that the majority of students responded positively to the technical nature of the Laboratory format, and to the system of gimmicks provided through the program which established an efficient motivation system of rewards for students' reading accomplishments. Rewards of free time for reading and games, and awards for work accomplished, were observed by evaluators throughout the year. Observations revealed that teachers had supplemented the New Century program with reading activities using materials such as Phonetic Code Buster workbooks, Reading Achiever, Spell Finder and Skill Builder materials, and general interest paperback books and games.

Teacher interviews revealed their opinions regarding the merits of the New Century program with respect to the sequential development of reading activities geared to individual student abilities. However, several teachers commented that after participation in the program over several years, the teacher supervisory role had become tedious. It was reported that students who did not adapt to this method of instruction were transferred into another Title I design program.

Student attendance continued to be a problem which was directly related to the general poor attendance experienced in the

city. Teachers stressed the importance of the need for consistent student attendance and program participation for the full impact of the Laboratory potential to be evidenced in achievement of student gains.

Problems experienced in the Design I regular middle school reading program were similar in the New Century Laboratory Design II program. Interview findings revealed that arrangements for reading classes had been disruptive to the regular school timetable and several teachers continued to suggest that the Title I program should be scheduled along with regular reading classes. In addition, although parental involvement continued to be encouraged through the scheduling of meetings, attendance was reported to be only fair.

Interviews with principals, Title I teachers, and aides revealed positive attitudes and opinions with respect to program's success.

Achievement of Performance Objectives - Middle Schools - Design II

In Design II, the same four sets of performance objectives were used in the on-going determination of individual students as well as program success. In phonic analysis, the 340 Design II students in the three program schools achieved 73% mastery. Of the nine objectives, the fourth was achieved by 93%, the sixth by 83%, and the fifth by 78 percent. All of the others fell in a group with between 75 and 67% achievement and one objective, number three, was achieved by only 58 percent. Two of the schools as units achieved 75% or better mastery. These data are shown in TABLE 17..

Nine objectives dealing with structural analysis, (TABLE 18) on an overall basis, were achieved by only 38% of the students. Objectives one and two were mastered by 71%, number three by 62%, and the others by 40% or less. One of the three schools did however show 72% achievement on these objectives. It should be noted that one school addressed only four of the nine objectives which may have contributed to limited achievement of objectives in this set.

On 16 objectives concerned with comprehension skills, analysis of the data provided to the evaluators showed 36% program-wide mastery. Only the first objective showed its achievement by better than 80% of the program participants. Four others (2, 3, 4, 6) were also achieved by 50% or more of the students. These data are presented in TABLES 19 and 20.

Data received for four reference and study skill objectives when analyzed showed 44% program-wide mastery. Objectives one and two were achieved by 66% and 58% of the participants. The others fell below 35% achievement.

TABLE 17

Final Achievement of Performance Objectives
Design II New Century

N = 340

School	No. of Pupils	Phonic Analysis 1	2	3	4	5	6	7	8	9	TOTAL	Percent of Achievement
Lewis	138	138	109	101	132	96	108	92	91	65	932	75%
McCormack	75	75	75	71	71	59	64	65	49	61	590	87%
Timilty	127	29	29	26	115	112	109	99	85	93	697	61%
TOTAL	340	242	213	198	318	267	281	256	225	219	2219	73%
Percentage		71	62	58	93	78	83	75	66	64	73%	

TABLE 18

N = 340

School	No. of Pupils	Structural Analysis 1	2	3	4	5	6	7	8	9	TOTAL	Percent of Achievement
Lewis	138	138	114	114	1	---	---	---	---	---	367	30%
McCormack	75	75	42	38	55	39	60	63	66	45	483	72%
Timilty	127	28	85	59	19	57	20	21	18	18	325	28%
TOTAL	340	241	241	211	75	96	80	84	84	63	1175	38%
Percentage		71	71	62	22	40	23	25	25	18	38%	

TABLE 19

Final Achievement of Individual Performance Objectives
Design II New Century

N = 340

School	No. of Pupils	Comprehension Skills 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	25	TOTAL	Percent Achieve
Lewis	138	135	129	109	88	70	50	39	29	24	23	2	1	--	--	--	--	699	32%
McCormack	75	73	63	34	56	58	49	24	20	39	20	20	42	27	43	35	69	672	56%
Timilty	127	75	23	59	28	6	71	43	6	40	27	15	15	42	49	59	14	572	28%
TOTAL	340	283	215	202	172	134	170	106	55	103	70	37	58	69	92	94	83	1943	36%
Percentage		83	63	59	50	39	50	31	16	30	20	11	17	20	27	28	24	36%	

TABLE 20

N = 340

School	No. of Pupils	Reference Study Skills 1	2	3	4	TOTAL	Percent of Achievement
Lewis	138	133	109	73	40	355	64%
McCormack	75	73	55	13	8	149	50%
Timilty	127	24	34	21	10	89	18%
TOTAL	340	230	198	107	58	593	44%
Performance		66	58	31	17	44%	

DESIGN III - JACKSON-MANN MIDDLE SCHOOL

FINDINGS

Evaluation findings revealed that twenty-two students participated during the school year in Title I reading classes specifically designed for hearing impaired students. Teacher interviews indicated that the freedom of teaching style allowed within this Title I program structure at the school assisted teaching efforts in providing an ongoing and remedial reading program geared to the particular and unique needs of these twenty-two students. Student attendance throughout the year was reported to be extremely good with approximately 90-95% attendance. Interviews and observations revealed that the pupil teacher-student ratio had been approximately one to five in the daily classes of five periods.

Interviews and observations indicated that students were selected from a group of forty-eight students at the beginning of the school year using the Peabody Picture Vocabulary Test and the Stanford Achievement Test. Placement scores were based upon and compared with the nationwide norms for deaf students. Interviews revealed that the Metropolitan Achievement Test was administered in October and again in May for assessment of student reading gains throughout the school year. It was reported that the Sucher-Allred Placement Inventory was administered early in the school year to determine students' reading skill strength and weaknesses.

Evaluation observations disclosed that a competent teacher and a reading aide throughout the year had established a secure and non-threatening teaching environment. Interviews and observations revealed that the teacher and aide provided classroom instruction geared to a highly individualized instruction method and had placed much emphasis on students' oral communication. Materials and teaching methods were reported to be geared specifically toward students' visual and tactile sense to compensate for auditory deficiencies.

Interviews and observations revealed that the program combined the use of commercially prepared materials and workbooks such as the S.R.A. Laboratory, Barnell Loft Kits, and teacher-made teaching aids. Games and reading books were also reported to be a focus of reading activities. The teacher expressed the belief that the most useful material this year has been the "Let's Generate Sentences" booklets which were picture-oriented and assisted students in utilizing all available communication resources. It was found that instruction was geared to the functional reading and communication needs of students through the use of newspapers, bus schedules, and related "life-experience" based materials. According to interviews, teacher focus had been upon reading as a means of communication, and observations revealed that field trip experiences and everyday student-life activities were utilized in class lessons throughout the school year.

Evaluation findings revealed thorough teacher planning and organization and maintenance of student files and records on a

continuing basis throughout the program.

Interviews with the teacher indicated that there was informal interaction between program staff and other school faculty with respect to individual student progress. Teacher efforts to contact parents had been ongoing with the organization of three parent meetings which were reported to have been poorly attended. Memos sent home to parents and telephone calls regarding student reading progress were also used in the endeavor to involve parents in program activities. However, parent response continued to be only fair. Teacher interviews revealed that toward the end of May, student self-motivation was a problem. However, efforts were continued to maintain student interest through participation in a field trip to City Hall.

Evaluation findings revealed that the sensitivity of program personnel to the special needs of these hearing impaired students, coupled with the harmonious classroom environment experienced throughout the year, were contributing factors where success was experienced in student reading gains and communication skills.

Achievement of Performance Objectives - Middle Schools - Design III

The Design III school with 22 students provided data which, when analyzed, showed 77% mastery of the nine performance objectives concerned with phonic analysis. The first objective was achieved by all students, the second by 95%, the fourth by 82%, and the fifth by 77 percent. All five others were achieved by 68% of this design group (TABLE 21). Nine objectives in struc-

tural analysis as shown in TABLE 27 resulted in 30% mastery by participants, and only one objective (5) was achieved by more than 70 percent. One objective was achieved by 64% and one (8) by 59 percent. It should be noted that only six of the nine objectives were addressed by this group causing the overall achievement percentage to be lower than it would have been had all objectives been dealt with. (TABLE 22)

In comprehension skills (TABLE 23) only 12 of 16 objectives were treated with only two (6, 9) being achieved by 73% of the students. Achievement of the other objectives fell far below that which might have been expected, resulting in overall program achievement being 19 percent.

The fourth set of objectives dealing with four study skills and presented in TABLE 24 shows that only three of the four objectives were addressed with one objective (1) being achieved by 86% of the group. Because the achievement of the other objectives once again fell below expectations, overall achievement for the program, on the basis of data provided, reached 26 percent.

TABLE 21

Final Achievement of Performance Objectives
Design III

N = 22

School	No. of Pupils	Phonic Analysis 1	2	3	4	5	6	7	8	9	TOTAL	Percent of Achievement
Jackson-Mann	22	22	21	15	18	17	15	15	15	15	153	77%
Percentage		100	95	68	82	77	68	68	68	68	77%	

TABLE 22

Final Achievement of Performance Objectives
Design III

N = 22

School	No. of Pupils	Structural Analysis 1	2	3	4	5	6	7	8	9	TOTAL	Percent of Achievement
Jackson-Mann	22	14	--	1	9	16	--	--	13	7	60	30%
Percentage		64	--	4	40	73	--	--	59	32	30%	

TABLE 23

Final Achievement of Performance Objectives
Design III

N = 22

School	No. of Pupils	Comprehension Skills																TOTAL	Percent of Achievement
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	25		
Jackson-Mann	22	13	1	1	1	1	16	--	4	16	2	1	8	2	--	--	--	66	19%
Percentage		32	4	4	4	4	73	--	18	73	9	4	36	9	--	--	--	19%	

TABLE 24

Final Achievement of Performance Objectives
Design III

N = 22

School	No. of Pupils	Reference Study Skills				TOTAL	Percent of Achievement
		1	2	3	4		
Jackson-Mann	22	19	3	--	1	23	26%
Percentage		86	14	--	4	26%	

NON-PUBLIC SCHOOLS

FINDINGS

Non-public schools, eight middle and four high schools, each received the full services of one Title I teacher and one aide during the 1978-1979 school year. Two middle schools not scheduled to have Title I reading programs were added to the program in September bringing the total at that time to eight. In January, the Reading/Language Arts program was implemented in four high schools through Part B Title I funding. Although a total of 520 non-public school students received Title I services during the school year attrition and mobility made enrollment vary. At the end of the school year data was provided to the evaluators for 275 middle school students and 187 high school students, or a total of 462 students, who were enrolled in Title I programs.

The organization and structure of the Title I programs implemented in the twelve non-public schools followed the stipulated Title I guidelines already established and implemented in the public schools. These included the pre and post testing of students, the establishment of individualized teaching procedures, the ongoing maintenance of student records, files, and weekly individualized programs of work, and the use of middle school and high school performances objectives. One exception was noted by the evaluators in one high school where Title I classes was scheduled with regular reading classes into the regular school timetable.

In all schools, evaluators made note of the great quantity of materials available, including Readers Digest, Satellite Books,

Barnell Loft Series, Venture One and Two, Xerox Education Publications, and many other books, games, and materials. Workspace in all middle schools was observed by the evaluators to be appropriate, well lighted and ventilated, and having adequate facilities. In one school, however, both teacher and aide commented on the location and adequacy of their Title I classroom, specifying that the basement room located in a building outside of the school was poorly heated in winter and was exposed to oil fumes. This was cited as not being conducive to a good working environment for Title I students. In another middle school, the program was being implemented in the same room with an elementary school Title I program. However the teacher made comment that this had not presented a problem with reference to teaching quality or work with students.

In non-public middle and high schools, with the exception of one high school, student attendance was reported to be excellent. Teachers interviewed commented that consistent attendance contributed much to student gains in reading abilities. Overall, the evaluators noted that the well-ordered atmosphere of the non-public schools was reflected within Title I classrooms.

Teachers who had previous teaching experience in the public schools and who had taught this year in non-public schools commented that because the majority of their students were functional readers emphasis had been placed on comprehension rather than on phonetic skills. In both the non-public middle and high schools, teachers interviewed commented on the need to address Title I reading performance objectives more to the student's life

experiences through the use of career awareness materials, current affairs, and practical writing and reading activities.

Problems experienced in the implementation of Title I programs in the twelve non-public schools were similar to those experienced at the public schools. Teachers commented on difficulties in scheduling Title I classes into the school timetable, the large amount of paper work, the inadequacy of testing tools, insufficient low vocabulary high-interest reading materials, and the "low prestige" of the Title I program with students.

In two of the newly established Title I high school programs, teachers reported that the Title I program was isolated from the school curriculum and that they believed that the faculty had not been sufficiently informed regarding the merits of Title I.

Assessment throughout the program indicated that involved teachers and administrators were generally enthusiastic about the program and the use and accomplishments of program services in providing remedial instruction.

Achievement of Performance Objectives - Non-Public High Schools

Eight groups of the same objectives used by the public schools were pursued by the four participating schools. In grammar, (TABLE 25) one school submitted no data and another data on only six of the 35 objectives. One of the two other schools treated all 35 and achieved a 63% mastery of the objectives while the fourth school treated only 19 and achieved 53% mastery in spite of the fact that only half had been addressed. Data submitted reflects

33% mastery of objectives on a program-wide basis however when only the three schools submitting data were considered 36% mastery was achieved.

In mechanics (TABLE 26) 26 objectives were pursued by one school, another addressed only 20 and a third only five. Although the school which had addressed all 35 objectives achieved 76% of them the overall program mastery was 39%. When only the three schools submitting data were considered 60% mastery was realized.

Eight objectives dealing with usage (TABLE 27) were addressed by one school and another addressed only five. On a program-wide basis 39% achievement was found to exist however the school which had pursued all eight achieved 85% success. Two schools submitted no data on these objectives. As in the pursuit of usage objectives, those in composition (TABLE 28) were addressed by only three schools with one of the schools submitting data on only one of the seven objectives in the group and another only three. Twenty-five percent mastery was achieved when all four schools were considered as a program group. One school however did attain 53% success.

Phonic analysis objectives (TABLE 29) were covered by two schools one with 100% and the other with 95% success. The percentage of achievement for the program however, when all four schools were included was 49 percent. Three objectives in stuctural analysis (TABLE 30) were treated by the four schools which achieved 64% mastery as a program group. Once again one school achieved 100% mastery while 82% was achieved by another (TABLE 31).

Comprehension skills were fully addressed by two schools

TABLE 25

Final Achievement of Performance Objectives
Non-Public High Schools

N = 165

Grammar

Performance Objective	Cushing N = 50	Cathedral N = 31	Mission N = 50	St. Gregory N = 34	Program-Wide Achievement of Obj.	Percent. of Achievement
1	40	31	--	--	71	43%
2	40	31	--	--	71	43%
3	47	31	48	--	126	77%
4	42	31	--	--	73	44%
5	41	31	--	--	72	44%
6	44	31	--	--	75	45%
7	44	31	--	--	75	45%
8	19	31	--	--	50	30%
9	19	31	5	N	50	30%
10	50	30	11	O	80	48%
11	50	30	--		80	48%
12	29	30	--		59	36%
13	29	30	--	D	59	36%
14	33	30	--	A	63	38%
15	33	30	--	T	63	38%
16	39	30	39	A	108	65%
17	25	30	--		55	33%
18	26	30	--		56	34%
19	39	30	--	A	69	42%
20	22	--	--	V	22	13%
21	22	--	--	A	22	13%
22	16	--	--	I	16	9%
23	16	--	36	L	52	31%
24	29	--	48	A	77	46%
25	37	--	--	B	37	22%
26	33	--	--	L	33	20%
27	36	--	--	E	36	22%
28	30	--	--	--	30	18%
29	25	--	--	--	25	15%
30	30	--	--	--	30	18%
31	25	--	--	--	25	15%
32	20	--	--	--	20	17%
33	29	--	--	--	29	17%
34	26	--	--	--	26	16%
35	26	--	--	--	26	16%
TOTAL ACHIEVE.	1111	579	187	0	1877	33%
Percent, of Achievevement	63%	53%	11%	0%	33%	

TABLE 26

Final Achievement of Performance Objectives
Non-Public High Schools

Mechanics

N = 165

Performance Objective	Schools: Cushing N = 50	Cathedral N = 31	Mission N = 50	St. Gregory N = 34	Program-Wide Achieve. of Obj.	Percent. of Achievement
1	21	28	43	--	92	56%
2	34	28	35	--	97	59%
3	42	28	33	--	103	62%
4	42	18	32	--	102	62%
5	19	--	16	--	35	21%
6	19	--	8	--	27	16%
7	37	--	2	--	39	24%
8	33	--	--	--	33	20%
9	49	--	33	--	82	50%
12	37	--	37	--	74	45%
13	37	--	34	--	71	43%
14	34	--	38	--	72	44%
15	34	--	33	--	67	41%
16	39	--	42	--	81	49%
17	43	--	36	--	79	48%
18	35	--	37	--	72	44%
19	35	--	--	--	35	21%
20	44	--	39	--	83	50%
21	43	--	--	--	43	26%
22	42	--	43	--	85	51%
23	42	--	--	--	42	25%
24	40	--	41	--	81	49%
25	46	--	--	--	46	28%
26	46	28	--	--	74	45%
27	50	--	46	--	96	58%
28	44	--	42	--	86	52%
TOTAL ACHIEVE.	987	140	670	0	1797	39%
Percent. of Achievement	76%	14%	52%	0%	39%	

TABLE 27

Final Achievement of Performance Objectives
Non-Public High Schools

N = 165

Usage

School	No. of Pupils	Objectives 1	2	3	4	5	6	7	8	TOTAL	Percent of Achievement
Cardinal Cushing	50	49	50	45	43	43	47	36	29	342	85%
Cathedral	31	--	--	--	--	--	--	--	--	0	0
Mission Church	50	22	46	42	44	16	--	--	--	170	43%
Saint Gregory	34	--	--	--	--	--	--	--	--	0	0
TOTAL	165	71	96	87	87	59	47	36	29	512	39%
Percentage		43	58	53	53	36	28	22	17	39%	

TABLE 28

N = 165

Composition

School	No. of Pupils	Objectives 1	2	3	4	5	6	7	TOTAL	Percent of Achievement
Cardinal Cushing	50	22	22	25	25	25	25	42	186	53%
Cathedral	31	29	--	29	29	--	--	--	87	40%
Mission Church	50	--	17	--	--	--	--	--	17	49%
Saint Gregory	34	--	--	--	--	--	--	--	--	--
TOTAL	165	51	39	54	54	25	25	42	290	25%
Percentage		31	24	33	33	15	15	25	25%	

TABLE 29

Final Achievement of Performance Objectives
Non-Public High Schools

N = 165

Phonic Analysis

School	No. of Pupils	Objectives 4	5	6	7	8	9	TOTAL	Percent of Achievement
Cardinal Cushing	50	50	50	50	43	43	50	286	95%
Cathedral	31	--	--	--	--	--	--	0	0
Mission Church	50	--	--	--	--	--	--	0	0
Saint Gregory	34	34	34	34	34	34	34	204	100%
TOTAL	165	84	84	84	77	77	84	490	49%
Percentage		51	51	51	46	46	51	49%	

TABLE 30

N = 165

Structural Analysis

School	No. of Pupils	Objectives 2	3	5	TOTAL	Percent of Achievement
Cardinal Cushing	50	50	37	36	123	82%
Cathedral	31	25	4	--	29	31%
Mission Church	50	28	35	--	63	42%
Saint Gregory	34	34	34	34	102	100%
TOTAL	165	137	110	70	317	64%
Percentage		83	67	42	64%	

TABLE 31

Final Achievement of Individual Performance Objectives
Non-Public High Schools

N = 165

Comprehension Skills

School	No. of Pupils	Objectives 1	3	4	6	7	9	10	13	14	15	18	20	21	24	26	TOTAL	% of Ach.
Cardinal Cushing	50	40	43	32	50	17	29	23	38	14	14	45	38	24	25	50	482	65%
Cathedral	31	29	--	--	28	--	28	28	--	28	--	--	--	--	17	30	188	40%
Mission Church	50	19	--	--	23	--	--	--	--	--	--	--	--	--	--	--	42	56%
Saint Gregory	34	34	34	34	34	34	24	34	34	34	25	29	24	24	34	24	456	89%
TOTAL	165	122	77	66	135	51	81	85	72	76	39	74	62	48	76	104	1168	47%
Percentage		42	46	40	81	31	49	51	44	46	24	51	37	29	46	63	47%	

TABLE 32

N = 165

Reference/Study Skills

School	No. of Pupils	Objectives 1	2	5	6	7	TOTAL	Achievement
Cardinal Cushing	50	50	43	44	32	19	188	75%
Cathedral	31	--	--	--	--	30	30	19%
Mission Church	50	31	31	--	--	--	62	25%
Saint Gregory	34	23	23	25	23	22	116	13%
TOTAL	165	104	97	69	55	71	396	48%
Percentage		63	59	42	33	43	48%	

while one provided data on only seven of the fifteen objectives and one on only two objectives. As a program group 47% success was realized. One school attained 89% success. Five objectives dealing with reference study skills (TABLE 32) were reported on by two of the schools while one reported on only two and another on one. Although one of the schools attained 75% success, overall program-wide success of only 48% was attained.

Achievement of Performance Objectives - Non-Public Middle Schools

Four groups of objectives were addressed by the eight participating middle schools. Objectives concerning phonic analysis (TABLE 33) were achieved with 93% success with pupils in one school achieving 100% mastery. No school fell below 85% on the nine objectives and no objective was achieved by less than 78% of the pupils. In structural analysis (TABLE 34) all eight schools submitted data which when analized showed 81% program-wide success and 99% success in one school. No objective was achieved by fewer than 60% of the participants.

Data concerning comprehension skills (TABLE 35) indicated 66% success on a program-wide basis in this area. One school achieved 97% while another realized only 36% mastery. Although none of the sixteen objectives were mastered by less than 50% of the participants only one was achieved by as many as 80% of the participants. The fourth group of objectives treated on the middle school level, reference study skills, (TABLE 36) showed 69% program-wide success. Although one school attained 90% mastery of these objectives another showed only 46 percent. Because two schools did not provide success data on one of the four objectives treated this objective's mastery reached only 34% while another was mastered by 97% of the participants.

TABLE 33

Final Achievement of Performance Objectives
Non-Public Schools
(Middle Schools)

N = 275

School	No. of Pupil	Phonic Analysis 1	2	3	4	5	6	7	8	9	TOTAL	Percent of Achievement
Gates of Heaven	40	40	36	39	45	32	34	33	28	35	322	89%
Our Lady of Lourdes	35	35	35	35	35	33	32	32	33	35	305	97%
Our Lady of Perpetual Help	39	39	39	39	39	39	39	39	39	39	351	100%
Saint Ann	33	32	32	27	31	24	28	29	24	33	260	88%
Saint Augustine	33	33	33	33	32	24	32	33	20	31	271	91%
Saint Briget	26	26	26	26	26	26	26	26	26	13	221	94%
Saint Catherine	38	38	38	38	38	38	38	38	30	33	329	96%
Saint Gregory	31	31	31	27	31	31	27	19	15	24	236	85%
TOTAL	275	274	270	264	277	247	256	249	215	243	2295	93%
Percentage		100	98	96	100	90	93	90	78	88	93%	

TABLE 34

Final Achievement of Performance Objectives
Non-Public Schools
(Middle Schools)

N = 275

School	No. of Pupils	Structural Analysis 1	2	3	4	5	6	7	8	9	TOTAL	Percent of Achievement
Gates of Heaven	40	40	37	27	36	28	39	39	33	14	293	81%
Our Lady of Lourdes	35	35	10	19	33	30	29	32	24	7	219	70%
Our Lady of Perpetual Help	39	39	39	39	39	39	39	39	39	36	348	99%
Saint Ann	33	33	31	19	26	23	27	24	22	17	222	75%
Saint Augustine	33	33	12	21	32	31	32	30	32	24	247	83%
Saint Briget	26	23	9	21	20	22	22	25	28	8	178	76%
Saint Catherine	38	32	21	32	38	24	30	24	38	38	277	81%
Saint Gregory	31	31	25	30	24	26	20	21	17	19	213	76%
TOTAL	275	266	184	208	248	223	238	234	233	163	1997	81%
Percentage		97	67	76	90	81	86	85	85	60	81%	

TABLE 35

Final Achievement of Individual Performance Objectives
Non-Public Schools
(Middle Schools)

N = 275

Comprehension Skills

School	No. of Pupils	Objectives 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	25	TOTAL	% of Ach.
Gates of Heaven	40	16	15	25	20	4	36	29	30	--	15	4	15	--	1	--	21	231	36%
Our Lady of Lourdes	35	3	32	32	15	8	21	10	--	9	1	1	34	15	4	7	32	224	40%
Our Lady of Perpetual Help	39	39	39	39	39	39	39	39	23	37	37	37	39	39	39	39	39	604	97%
Saint Ann	33	19	32	22	26	33	22	33	32	19	18	26	33	17	16	25	14	387	73%
Saint Augustine	33	33	31	24	16	33	33	33	24	24	25	32	22	17	29	29	19	424	80%
Saint Briget	26	18	9	12	22	23	22	6	8	14	10	11	14	5	5	6	18	203	49%
Saint Catherine	38	29	36	34	32	31	27	32	25	22	29	33	33	28	26	34	--	451	74%
Saint Gregory	31	31	31	28	18	31	31	15	28	31	31	26	31	18	18	17	--	385	78%
TOTAL	275	188	225	216	188	202	231	197	186	142	166	170	221	139	138	157	143	2909	66%
Percentage		68	82	78	68	73	84	72	68	52	60	62	80	50	50	57	52	66%	

TABLE 36

Final Achievement of Performance Objectives
Non-Public Schools
(Middle Schools)

N = 275

School	No. of Pupils	Reference Study Skills 1	2	3	4	TOTAL	Percent of Achievement
Gates of Heaven	40	34	32	--	7	73	46%
Our Lady of Lourdes	35	34	28	4	4	70	50%
Our Lady of Perpetual Help	39	38	31	29	31	129	83%
Saint Ann	33	33	25	20	17	95	72%
Saint Augustine	33	33	33	21	33	120	90%
Saint Briget	26	25	15	5	14	59	57%
Saint Catherine	38	38	38	--	38	114	75%
Saint Gregory	31	31	31	15	18	95	77%
TOTAL	275	266	233	94	162	755	69%
Percentage		97	85	34	59	69%	

CHAPTER 3

Student Attendance

In order to assess the drawing and holding power of the programs as well as to appraise the relationship of attendance to achievement growth attendance data was obtained for each program in each of the program schools on both the high school and middle school levels. These data have been analyzed in TABLES 37, 38 and 39.

The number of students in each program, the number of days classes were held in each program in each school, and the number of days each student attended classes was obtained from data provided by the Title I central office. The number of days of possible attendance in each case was arrived at by multiplying the number of students by the number of days classes were held. In other words the students who attended a class that had ten sessions could have, if all ten attended all ten sessions, had a possible 100 pupil days or 100% attendance for the program. If there had been ten absences over the total time period there would have been 90 days of pupil attendance or 90% attendance for the program.

The number of actual days of attendance was obtained by adding the total number of days attended by all students in a program to arrive at a grand total of the actual days attended. The average number of days attended was obtained by dividing the total number of actual days by the number of students. The attendance percentage was obtained by dividing the number of possible days into the number of actual days.

TABLE 37

High School Attendance by Program

N = 943

Program	No. of Pupils	Pupils Days Attended	Possible Pupils Days	Average No. of Days Attended	Attendance Percentage
Reading Only	342	34,016	52,986	100	64%
Reading/ Language Arts	455	28,988	61,913	64	47%
Work Study	146	19,881	22,830	136	87%
TOTAL	943	82,875	137,729	88	60%

TABLE 38

Middle School Attendance by Program Design

Design I	1,183	125,887	180,584	106	70%
Design II	418	38,263	64,554	91	59%
Design III	24	2,460	3,792	102	65%
TOTAL	1,625	166,610	248,730	102	67%

TABLE 39

Non-Public School - Attendance

Middle School	284	30,291	42,368	107	71%
High School	184	9,537	16,192	52	59%
TOTAL	468	39,828	58,560	85	68%

Chapter 4

STUDENT ACHIEVEMENT

As measured by a comparison of pre-post test results on standardized tests using percentile gains, each of the program components for which data was submitted achieved the overall program's achievement goal. On the high school level, the "Reading Only" program surpassed the objective which was also met by the "Reading/Language Arts" component. Test scores reported for middle school Design I pupils also indicated that the objective had been met and that the greatest success of all of the public school programs was attained by the Design II pupils on this level.

Although the publication of this report was scheduled for early July of this year, and all content except test data analysis was completed at that time, delays in obtaining results for some components delayed final publication and delivery. Information received at the end of the summer included a computer analysis of the matching test results for some of the program groups performed by the McGraw Hill Company with T - test values for each subtest, where N totalled 10 or more. With respect to significance levels of these T - test values, the following is given.

T ÷ Value	Level of Significance
under 1.96 s.e.*	insignificant
1.96 - 2.58 s.e.	5%
over 2.58 s.e.	1%

* s.e. = standard error

Significant at the 5% (1%) level implies that the gain for which the result is computed has only 5% (1%) probability of being attributable to chance, thus conversely implying a 95% (99%) confidence level that the gains are attributable in large part to the assistance being offered by the program being evaluated.

With respect to these programs, the average student would be expected to gain one month for each month of instruction. This gain was compared with the T - values. When this information was available or usable it was included under the appropriate headings.

High Schools

Measurement of Achievement - High School-Reading Only

On the basis of Metropolitan Achievement Test data provided, the achievement goal of the program was met by this design group. As indicated in the description of evaluation procedures achievement was measured using a percentile gain analysis. Using this approach success on the total test in terms of percentile gain, was determined by taking the average of the percentile growths in the three subtests, i.e. (Vocabulary and Comprehension and Power) $\div$ 3, and rounding the result to the nearest whole number (1/3 = 0, 2/3 = 1).

From TABLE 40 of 266 students in grades 9 - 12 taking the total test, (266 students had pre-post results for all three subtests, thus making it possible to compute a total test score, while 297 students had pre-post results in the vocabulary subtest. The 31 students who had vocabulary pre-post test scores only had to be discounted in total test calculations since no average could be computed), 195 achieved success of 1 or more percentile gain from pre to post test. Since this is 73% (great-

TABLE 40

Reading as a Separate Subject Title I
1 or More Percentile Gain Pre-Post

School	Test Total		%	Reading Vocabulary		%	Reading Comprehension		%	Reading Power		%
Grade 9	S*	T**		S	T		S	T		S	T	
Boston	24	35	69	25	36	69	13	35	37	21	35	60
Burke	18	23	78	16	24	67	14	23	61	17	23	74
Charlestown	22	30	73	17	31	55	19	30	63	22	30	73
Jamaica Pl.	32	46	70	26	54	48	32	46	46	30	46	65
Roxbury	25	34	74	22	39	56	22	34	65	25	34	74
South Boston	1	2	50	2	5	40	1	2	50	1	2	50
TOTALS	122	170	72	108	189	58	101	170	59	101	170	59
Grade 10												
Boston	22	25	88	19	26	73	19	25	76	21	25	84
Burke	11	12	92	10	15	67	8	12	67	11	12	92
Charlestown	6	7	86	5	8	63	6	7	86	6	7	86
Jamaica Pl.	8	11	73	7	12	58	7	11	64	7	11	64
Roxbury	1	2	50	1	2	50	1	2	50	1	2	50
South Boston	4	4	100	6	6	100	2	4	50	4	4	100
TOTALS	52	61	85	48	69	70	43	61	70	50	61	82
Grade 11												
Burke	4	5	80	5	5	100	3	5	60	4	5	80
Charlestown	7	13	54	10	13	77	6	13	46	5	13	38
Jamaica Pl.	9	11	82	5	11	46	5	11	46	6	11	55
South Boston	1	2	50	2	3	67	1	2	50	1	2	50
TOTALS	21	31	68	22	32	69	15	31	48	16	31	52
Grade 12												
Burke	0	1	0	2	2	100	0	1	0	0	1	0
Roxbury	0	1	0	1	1	100	0	1	0	1	1	100
South Boston	0	2	0	1	4	25	0	2	0	0	2	0
TOTALS	0	4	0	4	7	57	0	4	0	1	4	25
GRAND TOTAL	195	266	73	182	297	61	159	266	60	168	266	63

*Success
**Total

TABLE 41

Reading as a Separate Subject Title I
5 or More Percentile Gain Pre-Post

School	Test Total		%	Reading Vocabulary		%	Reading Comprehension		%	Reading Power		%
Grade 9	S*	T**		S	T		S	T		S	T	
Boston	7	35	20	22	36	61	12	35	34	14	35	40
Burke	13	23	56	11	24	46	13	23	56	13	23	56
Charlestown	15	30	50	12	31	39	14	30	46	16	30	53
Jamaica Pl.	23	46	50	18	54	33	26	46	56	25	46	54
Roxbury	19	34	56	19	39	49	20	34	59	18	34	53
South Boston	2	2	100	2	5	40	0	2	0	0	2	0
TOTALS	79	170	47	84	189	44	85	170	50	85	170	50
Grade 10												
Boston	18	22	81	15	26	58	17	25	68	15	25	60
Burke	8	12	66	8	15	53	8	12	66	8	12	66
Charlestown	5	7	71	4	8	50	4	7	57	5	7	71
Jamaica Pl.	5	11	45	2	12	17	6	11	54	5	11	45
Roxbury	0	2	0	1	2	50	1	2	50	0	2	0
South Boston	3	4	75	5	6	83	0	4	0	3	4	75
TOTALS	39	61	64	35	69	51	36	61	59	36	61	59
Grade 11												
Burke	3	5	60	3	5	60	2	5	40	3	5	60
Charelstown	4	13	31	5	13	38	4	13	31	3	13	23
Jamaica Pl.	3	11	27	4	11	36	3	11	27	3	11	27
South Boston	1	2	50	2	3	66	0	2	0	1	2	50
TOTALS	11	31	35	14	32	43	10	31	32	10	31	32
Grade 12												
Burke	0	1	0	1	2	50	0	1	0	0	1	0
Roxbury	0	1	0	0	1	0	0	1	0	0	1	0
South Boston	0	2	0	0	4	0	0	2	0	0	2	0
TOTALS	0	4	0	1	7	14	0	4	0	9	4	0
GRAND TOTAL	129	266	49	132	297	45	131	266	49	131	266	49

*Success
**Total

er than a majority) the program has achieved its goal of .7 grade level gain for this majority. In fact, it achieves this goal in each of the three subtests (61%, 60%, and 63% respectively). Additionally, each grade except grade 12 (with four total students) achieved program success. These results are well in excess of program success criteria.

As further supportive data, TABLE 41 is offered. Students listed here have achieved success at the rate of 5 or more percentile gain. These numbers, while certainly not of the same percentage magnitude as those of TABLE 40, almost achieve the majority needed for program success in their own right (129 out of 266, 49%). This majority (138 out of 275, 50.18%) is achieved if those students achieving at the 4 percentile gain level are added into TABLE 41

Those sudents who have gained 4 or more percentiles have clearly increased their relative standing and have achieved program success easily. Thus this program not only meets but also surpasses the stated objective.

Measurement of Achievement - High School-Reading/Language Arts

An analysis of Metropolitan Achievement Test scores indicates that this group also met the program's achievement goal. This analysis was achieved through the use of percentile data.

Success on the total test in terms of percentile gain was determined by taking the average of the percentile growths in the three subtests, i.e. (Vocabulary and Comprehension and Power) $\div$ 3, and rounding the result to the nearest whole number (1/3 = 0, 2/3 = 1).

TABLE 42 presents an analysis of student achievement in vocabulary comprehension and reading power as indicated by test scores on each grade level. TABLE 43 shows total program success in these areas in percentiles. From TABLE 42, of 240 students, 159, or 66%, succeeded at the one (1) or more percentile gain level from pre- to post-test. Since this is greater than the required majority (121) this program can be deemed to have succeeded. In each of the three subtests, this same required majority (and more) has been achieved. Additionally, at each grade level (9-12) more than the majority achieved success in each subtest as well as total test (TABLES 44, 45, 46, 47).

TABLE 42

Student Achievement
in
Vocabulary, Reading Comprehension, and Reading Power
as Indicated by Test Scores
(Public High Schools)

N = 275

NAME of SCHOOL	VOCABULARY GRADES 9	10	11	12	TOTAL	READING COMPREHENSION GRADES 9	10	11	12	TOTAL	READING POWER GRADES 9	10	11	12	TOTAL
Boston Tech.	7	9	11	7	34	7	8	10	7	32	7	8	10	7	32
Copley Square	2	2	3	1	8	2	2	3	1	8	2	2	3	1	8
Dorchester	23	12	2	1	38	23	11	2	1	37	23	11	2	1	37
English	26	11	9	1	47	24	10	8	1	43	24	10	8	1	43
Madison Park	24	25	1	2	52	19	24	1	2	46	19	24	1	2	46
South Boston	8	3	3	1	15	1				1	1				1
Umana Tech.	7	5	5	5	22	3	4	2	5	14	3	4	2	5	14
Boston Trade		23	18	18	59		23	18	18	59		23	18	18	59
TOTAL	97	90	52	36	275	79	82	44	35	240	79	82	44	35	240

As further supportive data, at the five (5) or more percentile gain level, close to the majority (over 45%) of students are listed (TABLE 42). If students succeeding at the four (4) percentile gain level are also listed, total test figures indicate that greater than a majority (50.8%, 122 out of 240) achieved this result. Over 49% achieved success at the five (5) percentile gain in each of the three subtests. If each grade level is considered individually at the four (4) percentile gain level, only grade 11 (44 students) falls short of the 48% success rate.

Again, this program has easily achieved the required grade level gain of .7 over the academic year.

TABLE 43

Total Success Rate
by Percentages

N = 240

MORE THAN	TOTAL		%	VOCABULARY		%	READING COMPREHENSION		%	READING POWER		%
1 Percentile	150	240	66	162	275	59	156	240	65	153	240	64
5 Percentile	112	240	47	124	275	45	125	240	52	110	240	46
4 Percentile	122	240	50.8	135	275	49.1	128	240	53.3	118	240	49.2

TABLE 44

SUBTEST GAINS
Grade 9

1 or More Percentile Gain:

	TEST TOTAL		%	VOCABULARY		%	READING COMPREHENSION		%	READING POWER		%
	S*	T**		S	T		S	T		S	T	
Boston Tech.	7	7	100	4	7	57	6	7	86	7	7	100
Copley Square	1	2	50	1	2	50	1	2	50	1	2	50
Dorchester	12	23	51	11	23	48	13	23	57	11	23	48
English	15	24	63	15	26	58	13	24	54	12	24	50
Madison Park	16	19	82	17	24	71	14	19	73	15	19	79
South Boston	1	1	100	4	8	50	1	1	100	1	1	100
Umana Tech.	3	3	100	7	7	100	2	3	67	3	3	100
TOTAL	55	79	70	59	97	61	50	79	62	50	79	62

5 or More Percentile Gain:

Boston Tech.	5	7	71	4	7	57	6	7	86	6	7	86
Copley Square	1	2	50	0	2	0	1	2	50	1	2	50
Dorchester	10	23	44	11	23	48	10	23	44	10	23	44
English	8	24	33	10	26	39	12	24	50	7	24	29
Madison Park	11	19	58	16	24	67	11	19	58	11	19	58
South Boston	1	1	100	3	8	38	1	1	100	1	1	100
Umana Tech.	2	3	67	7	7	100	2	3	67	2	3	67
TOTAL	38	79	48	51	97	53	43	79	54	38	79	48

4 or More Percentile

TOTAL	41	79	52	53	97	54.6	43	79	54	41	79	52

*Success
**Total

TABLE 45

SUBTEST GAINS
Grade 10

1 or More Percentile Gain:

	TEST TOTAL		%	VOCABULARY		%	READING COMPREHENSION		%	READING POWER		%
	S*	T**		S	T		S	T		S	T	
Boston Trade	16	23	70	16	23	70	18	23	78	16	23	70
Boston Tech.	6	8	75	4	9	44	7	8	88	6	8	75
Copley Square	0	2	0	0	2	0	0	2	0	0	2	0
Dorchester	6	11	55	5	12	41	7	11	64	5	11	46
English	4	10	40	8	11	73	5	10	50	5	10	50
Madison Park	16	24	67	14	25	68	13	24	54	16	24	67
South Boston				2	3	67						
Umana Tech.	4	4	100	4	5	80	3	4	75	4	4	100
TOTAL	52	82	63	53	90	59	53	82	65	52	82	63

5 or More Percentile Gain:

Boston Trade	13	23	57	11	23	48	14	23	58	13	23	57
Boston Tech.	6	8	75	1	9	11	7	8	88	4	8	50
Copley Square	0	2	0	0	2	0	0	2	0	0	2	0
Dorchester	2	11	18	4	12	33	6	11	55	2	11	18
English	4	10	40	5	11	46	2	10	20	4	10	40
Madison Park	11	24	46	11	25	44	11	24	46	12	24	50
South Boston				2	3	67						
Umana Tech.	4	4	100	4	5	80	3	4	75	4	4	100
TOTAL	40	82	49	39	90	43	43	82	52	39	82	47

4 or More Percentile Gain

TOTAL	43	82	52	43	90	48	45	82	55	42	82	51

*Success
**Total

TABLE 46

SUBTEST GAINS
Grade 11

1 or More Percentile Gain:

	TEST TOTAL		%	VOCABULARY		%	READING COMPREHENSION		%	READING POWER		%
	S*	T**		S	T		S	T		S	T	
Boston Trade	11	18	61	9	18	50	12	18	67	12	18	67
Boston Tech.	2	10	20	4	11	36	4	10	40	3	10	30
Copley Square	3	3	100	3	3	100	3	3	100	3	3	100
Dorchester	1	2	50	1	2	50	1	2	50	1	2	50
English	5	8	63	6	9	67	5	8	63	5	8	63
Madison Park	1	1	100	1	1	100	1	1	100	1	1	100
South Boston				1	3	33						
Umana Tech.	2	2	100	5	5	100	2	2	100	2	2	100
TOTAL	25	44	57	30	52	58	28	44	67	27	44	61

5 or More Percentile Gain:

Boston Trade	8	18	44	6	18	33	9	18	50	9	18	50
Boston Tech.	0	10	0	0	11	0	3	10	30	1	10	10
Copley Square	2	3	67	1	3	33	2	3	67	1	3	33
Dorchester	1	2	50	1	2	50	0	2	0	1	2	50
English	4	8	50	3	9	33	4	8	50	3	8	37
Madison Park	1	1	100	0	1	0	1	1	100	1	1	100
South Boston				1	3	33						
Umana Tech.	2	2	100	5	5	100	2	2	100	2	2	100
TOTAL	18	44	41	17	52	33	21	44	48	18	44	41

4 or More Percentile Gain:

TOTAL	19	44	43	21	52	40	21	44	48	18	44	41

*Success
**Total

TABLE 47

SUBTEST GAINS
Grade 12

1 or More Percentile Gain:

	TEST TOTAL		%	VOCABULARY		%	READING COMPREHENSION		%	READING POWER		%
	S*	T**		S	T		S	T		S	T	
Boston Trade	13	18	72	8	18	45	13	18	72	11	18	61
Boston Tech.	5	7	71	4	7	57	4	7	57	5	7	71
Copley Square	1	1	100	1	1	100	1	1	100	1	1	100
Dorchester	1	1	100	1	1	100	1	1	100	1	1	100
English	0	1	0	0	1	0	0	1	0	0	1	0
Madison Park	2	2	100	1	2	50	2	2	100	1	2	50
South Boston				0	1	0						
Umana Tech.	5	5	100	5	5	100	4	5	80	5	5	100
TOTAL	27	35	77	20	36	55	25	35	71	24	35	69

5 or More Percentile Gain:

Boston Trade	8	18	45	7	18	39	11	18	72	7	18	39
Boston Tech.	0	7	0	2	7	28	0	7	0	0	7	0
Copley Square	1	1	100	1	1	100	1	1	100	1	1	100
Dorchester	1	1	100	1	1	100	1	1	100	1	1	100
English	0	1	0	0	1	0	0	1	0	0	1	0
Madison Park	1	2	50	1	2	50	1	2	50	1	2	50
South Boston				0	1	0						
Umana Tech.	5	5	100	5	5	100	4	5	80	5	5	100
TOTAL	16	35	46	17	36	47	18	35	51	15	35	43

4 or More Percentile Gain:

TOTAL	19	35	54	18	36	50	19	35	54	17	35	49

*Success
**Total

An analysis of the computerized testing results (242 students) for Public High Schools in Language Arts yielded the following information. The pretest (and posttest) administered to grade 9 was the California Achievement Test (CAT) form 4A while higher grades received CAT form 5A. The success norm for the average student was taken to be 7 months gain (.7 grade levels), the difference in months between the pre and post test (October 1978 - May 1979).

Since T - values were provided, a high probability of program success can be implied in the following areas:

		MECHANICS			USAGE			TOTAL LANGUAGE			SPELLING		
1% LEVEL	GRADE	N	GAIN	T	N	GAIN	T	N	GAIN	T	N	GAIN	T
	9	77	1.3	8.25		*		65	1.1	6.72		*	
	10	82	1.4	7.81	80	1.1	3.00	78	1.6	7.99	82	.8	2.61
	11	44	2.2	4.54	37	2.1	4.07	37	1.7	5.45	37	1.1	3.04
	12	29	1.3	3.54		*		27	1.1	3.50		*	
5% LEVEL	9-12	-	-	-	-	NONE		-	-	-	-	-	-

* Did not achieve 5% nor 1% Level.

With these results, and with consideration to the areas in which the average achievement was acceptable and the T - test fell short of the 5% level (12th grade Language Usage with T = 1.04 and Spelling with T = 1.71), success is evident.

MEASUREMENT OF ACHIEVEMENT - HIGH SCHOOL - WORK STUDY MATHEMATICS

An analysis of the computerized testing results (64 students) for Public High Schools in Mathematics yeilded the following information. The pretest (and posttest) administered to grade 9 was the California Achievement Test (CAT) form 4A while higher grades received CAT form 5A. The success norm for the average student was taken to be 7 months gain (.7 grade levels), the difference in months between the pre and post test (October 1978 - May 1979).

Since T - values were provided, a higher probability of program success can be implied in the following areas:

		COMPUTATION			CONCEPTS			TOTAL MATH		
1% LEVEL	GRADE	N	GAIN	T	N	GAIN	T	N	GAIN	T
	9	36	.9	3.30	36	1.7	5.08	36	1.0	5.23
	10		*		28	1.1	3.78		*	
-5% LEVEL	-	-	-	-	N O N E		-	-	-	-

* Did not achieve 5% nor 1% Level.

With additional consideration to the two remaining areas in which the T - test was acceptable and the achievement barely missed norm levels (i.e. .6 and .5), these results imply a high degree of success in achieving the program objective.

Measurement of Achievement - Design I

The target population consisted of 1320 students in 17 Boston middle schools (467 in grade 6, 487 in grade 7, and 375 in grade 8). In the Fall of 1978 the Metro 70 was administered as a pre-test with the Metro 78 given as a post-test in the Spring of 1979. Control over matching pre and post tests was lost since Boston chose to change the testing instrument. However, both tests are comparable. In both cases grade 6 was given the Intermediate Level while grades 7 and 8 took the Advanced Level I.

From the data provided, a study of the gain in percentile standing from pre to post test yielded the following infomation:

a. 984 students (74.5%) had both pre and post test results .... 354 (76%) in grade 6, 353 (74%) in grade 7, and 277 (74%) in grade 8, giving sufficient data for a representative analysis.

b. The base level for achieving the program objective is 1 or more percentile point gain from pre to post test. Looking first at the strong case, i.e. 5 or more percentile point gain, it is obvious that the objective has been achieved, since 550 out 984 (56%) clearly constitutes a majority of the students tested. Complete results are listed in TABLE 48 which also indicated the following:

    1. With respect to grade levels, grade 6 (68%) and grade 8 (52%) achieved success, while grade 7 (46%) barely fell short.

TABLE 48

TITLE I MIDDLE SCHOOL READING PROGRAM
DESIGN I

STUDENT ACHIEVEMENT
(Students Achieving 5 or More Percentile Point Gain)

NT*= 984

	GRADE									SCHOOL		
	6			7			8			TOTALS		
School	NS*	N*	%	NS*	N*	%	NS*	N*	%	NS*	N*	%
Cleveland	33	51	65	23	55	42	20	44	45	76	150	51
Curley	22	26	85	6	22	27	6	12	50	34	60	57
Dearborn	15	18	83	5	5	100	3	6	50	23	29	79
Edwards	23	27	85	9	16	56	11	16	69	43	59	73
Gavin	25	39	64	19	52	37	18	32	56	62	123	50+
Homes	15	18	83	3	12	25	0	1	0	18	31	58
King	18	27	67	0	1	0	14	23	61	32	51	63
Mackey	14	22	64	8	13	62	11	23	48	33	58	57
McCormack	9	14	64	7	13	54	14	32	48	30	59	51
Mead	17	27	63	5	16	31	12	24	50	34	67	51
Michelangelo	6	17	35	7	12	58	4	6	67	17	35	49
Roosevelt	8	11	73	6	16	38	3	9	33	17	36	47
Taft	3	4	75	14	25	56	11	20	55	28	49	57
Timilty	6	8	75	4	7	57	3	4	75	13	19	68
Umana	0	0	0	10	27	37	1	1	100	11	28	38
Wheatley	14	16	88	23	36	64	12	19	63	49	71	69
Wilson	14	29	48	14	25	56	2	5	40	30	59	51
TOTALS	242	354	68	163	353	46	145	277	52	550	984	56

NS = Number Successful
N = Total Tested (Category)
NT = Grand Total Tested

2. Of the 17 schools, 14 had greater than a majority gaining 5 or more percentile points while only 3 failed to achieve this higher goal (49%, 47% and 38%).

c. If those students gaining 1 to 4 percentile points are included in the above figures, the results become still more sufficient in that:

1. In all grades a majority achieved success
...grade 6, 272 out of 354 (77%)
grade 7, 217 out of 353 (61%)
grade 8, 182 out of 277 (66%)

2. The total number of students satisfying the objective becomes 671 (671 out of 984 = 68%).

3. In all schools, with one exception at exactly 50%, a majority achieved success.

Based on this analysis, the objective has been achieved.

Measurement of Achievement - Design II

The target population consisted of 400 students (141 in grade 6, 153 in grade 7, and 106 in grade 8) enrolled in three Boston middle schools. The METRO 70 was administered as a pre-test during Fall of 1978, while the METRO 78 served as the post-test in Spring 1979, These tests are generally accepted to be comparable in thier results. Grade 6 was given the Intermediate Level while grades 7 and 8 took the Advanced Level I in both cases.

With the data provided, a study of percentile gain from pre to post test yielded the following information, contained in TABLE 49.

Two-hundred and ninety students (72.5%) had both pre and post test results...106 (75%) in grade 6, 111 (72%) in grade 7, 73 (69%) in grade 8. This represents sufficient data for analysis.

The Number of students who gained 5 or more percentile points, clearly achieving the objectives (since 1 percentile point gain was set as a base level for success) was 209 (209 out of 290 = 72%), easily surpassing a majority of students tested. In fact, this majority is well exceeded in every grade and in every school, with only one grade in one school falling below 60% success rate (59%).

These percentages are still further amplified if the students who achieved 1 to 4 percentile point gain are included, i.e., grade 6: 85 out of 196, 81%, grade 7: 87 out of 111, 78%, grade 8: 58 out of 73, 79%, grand total: 229 out of 290, 78.9 percent.

Based on this data and analysis, program success in this objective has been achieved with ease.

TABLE 49

TITLE I MIDDLE SCHOOL READING PROGRAM
DESIGN II

STUDENT ACHIEVEMENT
(Students Achieving 5 or More Percentile Point Gain)

NT*= 290

	GRADE									SCHOOL		
	6			7			8			TOTALS		
School	NS*	N*	%	NS*	N*	%	NS*	N*	%	NS*	N*	%
Lewis	26	38	68	27	40	67	23	34	68	76	112	68
McCormack	34	38	89	28	33	85	10	17	59	72	88	82
Timilty	19	30	63	24	38	63	18	22	82	61	90	68
TOTALS	79	106	74	79	111	71	51	73	70	209	290	72

NS = Number Successful
N = Total Tested (Category)
NT = Total Number (Grand Total)

Measurement of Achievement - Design III

Results of the Metro 70 test in the fall and the Metro 78 in the spring were compared for only the 15 of 21 program pupils who had both pre and post scores. Grade level analysis on each level did not indicate achievement of the objective. Pre test grade levels achieved totaled 39.3 for the group as a whole while post test grade levels totaled 29.7. According to individual test scores 12 of the 15 pupils lost ground however one pupil did exceed the "expected" grade level. On the basis of pre - post scores the levels of tests used in terms of student abilities should be reassessed. Consideration of findings, however, can also be tempered by the following factors. A.) The pre test grade level difference (placement minus tested) was great, averaging almost seven years below grade level. B.) The percentile scores on the pre test ranged from a low of one to a high of four.

Non-public Schools

Measurement of Achievement - Non-public Middle Schools

The program population consisted of 286 sutdnets (92 in grade 6, 86 in grade 7, 108 in grade 8) enrolled in eight parochial middle schools (Boston). During the fall of 1978 (the METRO 70) and in the spring of 1979 (the METRO 78) pre-andpost-tests were administered to the target population. The control of the testing instrument remained with the City of Boston which changed to METRO 78 in December of the project year. Due to the type and national scope of these tests, however, these results are assumed to be comparable. The sixth

grade received the Intermediate Level while the seventh and eighth completed Advanced Level I in both pre and post cases. The baseline parameter of success for this program is a gain of 1 or more percentile points. With the data available, a comparison of percentile scores with respect to increase was done, yielding the data listed in Table 50. This segment of the total program, based on this analysis, and interpretation of the data, easily achieved the stated objective.

TABLE 50

Title 1 Non-Public Middle School Student Achievement
(Students Achieving One or More Percentile Points)

N=256

Grade	N	No. Achieving One % Point	% Achieving One % Point
6	85	71	84
7	76	55	72
8	95	69	73
TOTAL	256	195	76

Measurement of Achievement - Non-public High Schools

The program population consisted of 164 students (68 in grade 9, 55 in grade 10, 24 in grade 11 and 17 in grade 12) enrolled in four parochial high schools in Boston. During the fall of 1978 and the spring of 1979, the IOWA Silent Reading Test - Level II - Form E was administered to the target population.

This test consisted of three subtests (vocabulary, comprehension, and reading power). A study of percentile growth for those students tested was performed on the available data, with results contained in Table 47 and with the following analysis.

A total of 130 students (79 percent) had test results, 58 in grade 9 (85 percent), 46 in grade 10 (84 percent), 19 in grade 11 (79 percent), and 7 in grade 12 (41 percent). With these percentages, the test results can be considered representative of all grades as well as the entire population.

The baseline level of success is a gain on one or more percentile points comparing the results of both pre and post tests. To acquire percentile increase (or score for that matter) on the total test, the three subtests results were averaged.

The number of students achieving success at this level (with percentages) is listed in Table 51.

TABLE 51

Title 1 - Non-Public High School Student Achievement
(Students Achieving One or More Percentile Points)

N=130

Grade	N	No. Achieving One % Point	% Achieving One % Point
9	58	48	83
10	46	40	87
11	19	13	68
12	7	6	86
TOTAL	130	107	82

Based on these results, this component of the total program has achieved the stated objective.

An analysis of the computerized testing results (115 students) for Non-public High School's in Language Arts yielded

the following information. The pretest (and posttest) administered to grade 9 was the California Achievement Test (CAT) form 4A while higher grades received CAT form 5A. The success norm for the average student was taken to be 5 months gain (.5 grade levels), the difference in months between the pre and post test (December 1978 - May 1979).

Since T - values were provided, a high probability of program success can be implied in the following areas:

		MECHANICS			USAGE			TOTAL LANGUAGE			SPELLING		
1% LEVEL	GRADE	N	GAIN	T	N	GAIN	T	N	GAIN	T	N	GAIN	T
	9	60	1.1	3.00		*			*			*	
	10		*			*			*			*	
	11		*			*			*			*	
	12	NO T - VALUES FOR GRADE 12											
5% LEVEL													
	9		*			*		53	.6	2.32		*	
	10	32	.9	2.15		*			*			*	
	11	18	1.9	2.46		*		18	1.6	2.52		*	
	12	NO T - VALUES FOR GRADE 12											

* Did not achieve 5% nor 1% Level.

With additional consideration to results which implied program success and for which areas the T - test fell short (10th grade Total Language with T = 1.79, 11th grade Language Usage with T = 1.05 and 11th grade Spelling with T = .89) as well as the entire 12th grade for which no T - test values were computed, this population can be deemed to have been successful.

An analysis of the computerized test results (of 257 students) for Public and Non-public High Schools in Language Arts yielded the following information. The pretest (and post-test) administered to grade 9 was the California Achievement Test (CAT) form 4A while higher grades received CAT form 5A. The success norm for the average student was taken to be five months gain (.5 grade levels), the difference in months between the pre and post test (December 1978 - May 1979).

Since T - values were provided, a high probability of program success can be implied in the following areas:

		MECHANICS			USAGE			TOTAL LANGUAGE			SPELLING		
1% LEVEL	GRADE	N	GAIN	T	N	GAIN	T	N	GAIN	T	N	GAIN	T
	9	137	1.2	7.51		*		118	.9	6.17	120	.8	2.75
	10	114	1.5	7.34		*		105	1.5	7.26		*	
	11	62	1.8	5.16	55	1.5	3.95	55	1.3	5.80	54	.8	2.76
	12	34	1.3	3.78		*		32	1.2	3.91	32	1.3	2.71
5% LEVEL	9		*			*			*			*	
	10		*		107	.8	2.57		*			*	
	11		*			*			*			*	
	12		*			*			*			*	

* Did not achieve 5% nor 1% Level.

With these results, and with consideration to those areas in which the average achievement was acceptable and the T - test fell short (12th grade Usage with T = 1.55), success is evident.

Chapter 5

CONCLUSIONS AND RECOMMENDATIONS

The Title I High School Reading Program now completing its second year was expanded from four high schools served during the 1977-78 school year to thirteen public high schools and nineteen public middle schools. In addition twelve more public schools, or a total of forty-four schools were served. Enrollment was increased from slightly less than five-hundred students in 1977-78 to well over three thousand in 1978-79. From a teaching staff of eight teachers and eight aides in the 1977-78 year the program grew to include more than seventy teachers and over sixty aides during the second program year.

Title I program services were found to be in compliance with the program proposal specifications and also with Title I guidelines. Most Title I teachers adhered to the instructional format established for the programs and complied with program specifications dealing with total number of students served and with the numbers of groups to be taught. In one case only, duplication of funded services was experienced early in the school year. This duplication, however, was quickly corrected. In all but a few cases, Title I programs were implemented in adequate, well-lit, and ventilated work space. At the non-public schools, it appeared that Title I services adapted well to the school system.

According to evaluation findings, the administrative and teaching staff was competent and sensitive to student needs and responsive to changing conditions. In order to provide a

meaningful and realistic program staff, members continued to devote their time and effort toward positive program implementation throughout the year.

Most teachers appeared to be effective in managing the educational processes, conditions,resources, and relationships during the class period in order to promote Title I objectives. With few exceptions, teachers demonstrated instructional competencies in the areas of classroom management, and maintenance of discipline as well as in the keeping of up-to-date student records and program files.

Teachers were observed to be in need of additional training in areas of instruction concerned with the utilization of teacher collected or made materials, relating class activity to student's everyday reading concerns or interests, the creation of classroom displays to encourage student reading, the application of motivational techniques to encourage regular program attendance, and the correlation and coordination of program activities or materials with other instruction, subject areas, or the general learning environment of schools.

The coordination of teacher-training and curriculum development, as well as the encouragement of creative teachers to implement innovative curriculum ideas, appeared to be continuing concerns.

Poor student attendance experienced at the middle and high school levels remained a problem in providing continuity of program services for students with irregular attendance patterns, and few teachers and schools appeared to have worked actively to improve school attendance. In some schools low prestige of the Title I program continued to be a problem.

High Schools

At the high school level, the introduction of the language arts component into the reading program at eight public schools, and at four non-public schools, appeared to have been a positive step in the development of an innovative and positive approach to teaching reading and to meeting the needs of target students. The foundations established through the language arts component this year will provide, in the opinion of the evaluators, an excellent springboard for next year's program.

Evaluation findings further revealed tha some reading/language arts teachers in several instances did not fully understand the concept and purpose of the language arts component of this Title I program. The results of the Writing Skills Inventory administered this year appear to reflect this factor. The use of the specially developed inventory indicated that while 41 percent of students were successful in making noticeable gains in their writing ability and eight percent remained the same, 51 percent of the students' second writing sample's quality diminished.

With the expansion of Title I services into the high schools, problems pertaining to the adaptation of the structure of Title I services into each school's organizational structure occurred. Scheduling difficulties, reported friction in some schools between faculty and program staff, and the reported isolation of Title I services from the total school effort became an area of concern. These problems in several instances appeared to be the result of a need for clarification regarding the intent and purposes of Title I program services as well as problems of programming.

Middle Schools

According to evaluation findings at the middle school level, most programs were firmly established, and programs of individualized instruction were implemented by a generally competent staff. Although the middle school programs have stabilized and cemented program services in schools, problems related to low student attendance, motivation, and scheduling remain a continuing concern.

Of the three middle school design approaches, the Design II New Century Laboratory involved students in reading remediation through a five day a week laboratory approach. While this methodology was reported to have resulted in improvement in student reading gains in the past five years, it is possible that students needs would be better served if Title I program Design I and II were coordinated to increase student participation in both approaches on a weekly basis. It is believed that this would present students with well-rounded reading remediation in the wider realm of communication skills.

With the expansion of Title I program services to the high school level during the past two years, it is conceivable that a student could receive program services on all three school levels. It is believed that the use of a cumulative individual student record system in which records would travel with the student from school to school, and which might be used in monitoring both the student program and Title I services, would serve to systematize curriculum content, provide for a unified approach throughout the city, and trace and provide individual student progress through longitudinal diagnosis.

Attainment of Program Objectives

The attainment of the overall objectives, when considered on the basis of this discussion, was realized. An analysis of the six separate segments, however, indicates that there is a need to strengthen several aspects of implementation and instruction. In brief, each of the segments and the extent to which it was achieved is presented in the following pages.

A. To Identify Students with the Greatest Needs

All students scoring below the 41st percentile (Metropolitan Achievement Test) were identified and considered for program selection. Students who participated in Title I were ranked below the 41st percentile. In a few schools, the cutoff point was lowered to the 21st percentile because of insufficient resources to acommodate all students falling into the former category. Evaluation findings, however, revealed that these target students were in many cases difficult to reach. Area geocodes and scheduling difficulties were cited as factors that contributed to this problem at both the high and middle school levels. In all cases, interviews and observation findings indicated that every effort had been made to include the lower percentile students in program services despite geocode and scheduling limitations.

This objective was fully achieved.

B. To Individually Assess Pupil Needs

At the beginning of the school year program students were given a battery of diagnostic tests. A diagnostic-prescriptive teaching approach was established and individualized student instruction was maintained throughout the year. Evaluation findings revealed that teachers continued to develop individualized

materials and activities geared to the specific needs of students on a daily basis. In most programs, student work was geared specifically toward the accomplishment of performance objectives that were assessed as areas of weakness and individualized student records were maintained throughout the year.

While efforts were made to provide Title I services to meet specific student and school needs, it appeared that this was an area for continued focus. In some schools with large Hispanic or second language student population, there appeared to be a need for the developement of additional specifically directed curriculum and materials.

Through the use of testing and diagnostic tools implemented at the commencement of the program and in each of the various programs throughtout the year, this objective was met.

C. To Inform Parents of Child Participation and Progress

School administration and Title I teachers informed parents of child participation in the Title I program at the beginning of the school year. The student's ongoing progress was reported to parents by both telephone and memorandum contact as well as through student school report cards. Although parents were informed of their child's Title I program participation, only a limited number of teachers were able to encourage active parental involvement or participatory interest in their children's reading progress.

This objective has been met.

D. To Involve Title I Parents in Local P.A.C. and its Activities

A Community Relations Team worked throughout the year in

efforts to encourage parent interest and involvement in program services. Ongoing meetings at individual schools and at the district level was the major approach to enlist parental involvement in the local P.A.C. and its activities. Evaluation findings revealed only limited parent attendance at these meetings and, in schools where P.A.C.'s had not been established, Community Relations personnel efforts to enlist the involvement of parents was hindered by meeting scheduling problems, lack of central or secure meeting places, and bad weather conditions. Although Community Relations team efforts were directed toward this objective, findings indicated that the outreach process of meetings appeared to have limited success in expanding parental interest and involvement in local P.A.C.s.

This objective, therefore, was met with only limited success.

E. To Have a Majority of Students Achieve the Specific Performance Objectives in Reading

Data related to the achievement of performance objectives which was received from the schools when analyzed indicated that several instructional approaches were used and that content material was varied according to the interpretation of individual pupil or group needs by teachers in each of the schools. The wide variations in the performance objectives addressed by these schools and by the program designs on each of the levels, seems to suggest a need for a more firm structure of objectives to be met for the specific levels and designs. It is possible that some teachers or schools reporting did not treat some objectives because they believed pupils had already achieved them, that the

number of objectives was more than that which could be accomplished during the time period, or that the objectives were in some instances inappropriate. Because of the sporadic data with regard to performance objective achievement it would be difficult to use these data to objectively assess program outcomes although it was evident that the objectives did provide a structure for wide course content and that they were used in the ongoing diagnosis of individual pupil progress by some teachers.

On the high school level, over 60% of two of the four sets of objectives for the "Reading Only" program were attained by the students. The other two sets were achieved by less than 40%. In the Reading/Language Arts program, only one of the eight sets of objectives was met by over 50% of the participants.

Middle school achievement of these objectives revealed that objectives in each of the four sets were achieved by over 55% of the students in Design I, while in Design II and Design III over 70% of the students attained the objectives related to phonic analysis but fell below 40% achievement in three other sets.

In the non-public high schools, one of eight sets of objectives dealing with structural analysis was achieved by over 60%, while achievement in seven other groups fell below the 50% level. On the non-public middle school level, objectives in each of the four sets of objectives pursued were achieved by at least 65% of the particiapants.

This objective, although achieved by some components, was achieved with only limited success on a program-wide basis.

F. To Provide for an Average .7 Grade Point Equivalent Growth in Reading Skill

Because of delays experienced in obtaining test data, percentile gains were used rather than grade point equivalents. Analysis of the data for the various designs submitted to the evaluators, using a percentile gain analysis, indicated that this objective was met by the large majority of students, namely those in the high school "reading only" and Reading/Language Arts" programs, and by students in the middle school Design I and Design II programs.

An analysis of the data submitted with reference to achievement as determined by standardized test score analysis indicates that this objective on a program-wide basis was met.

Status of Previous Recommendations

Recommendations presented by evaluators in the 1977-78 Final High School Reading Report dealt specifically with the establishment of student program elibibility checklists, early distribution of test-results, teacher in-service training, enrichment of program resources, and the utilization of homogeneous student grouping.

Evaluation findings revealed that these recommendations were implemented to varying degrees throughout the year As recommended, program personnel attempted to group students with similar needs and reading ability ranges. Scheduling difficulties, however, precluded full implementation. The Campbell Resource Center was utilized for teacher and aide in-service training as suggested

and scheduled meetings were held during the major part of the year during school hours.

Efforts were made to distribute pre-test results as soon as possible in the school year and in most cases, this recommendation was followed. In addition, standard criteria for student program eligibility and progress was utilized at the beginning of the school year as recommended.

Recommendations that dealt with program enrichment through the utilization of resource consultant specialists and community and city-wide library facilities experienced limited development.

Recommendations made in the January 1979 report were implemented to varying degrees during the spring term. Interview findings with administrators revealed that, as recommended by the evaluators, all high school programs planned to incorporate the language arts component into the reading program in the next school year. A drafting of high school reading/language arts objectives was accomplished, and middle school performance objectives were modified with the assistance of teachers and parents.

While evaluation findings revealed that efforts were made to encourage parental involvement, it appeared that little success was achieved in contacting parents through a direct personal approach or through techniques utilizing community organizations. Although there were indications that Title I personnel were generally aware of the need to correlate and coordinate Title I program activities with other subject area teachers, there appeared to be no formal and concerted uniform effort to accomplish this during the spring term as recommended.

Recommendations made dealing with scheduling difficulties were being implemented in schools on a case-by-case basis by the administrative team. Efforts were made to schedule students into next years Title I program at the end of this school year so that program instruction might begin on time in September of 1979.

Recommendations made with respect to student motivation and the reduction of stigma attached to program participation in both high school and middle school programs have been implemented to varying degrees. Evaluation findings indicated that some teachers experienced in elementary school reading teaching methods incorporated many teaching and motivational techniques used in the elementary schools into program instruction on the secondary level. It was believed by teachers that motivational reward systems and the use of attractive and informative displays provided a stimulating classroom atmosphere in some schools and, as a result, students appeared to show greater interest in reading, and work and attendance improved.

Although some teachers had investigated and used other appropriate reading materials such as newspapers and magazines geared to students' interests to supplement provided materials, evaluation findings indicated that the reliance of teachers on commercially prepared workbooks and materials remained a primary focus in the preparation and provision of individualized instruction. The recommendations made to develop two-way-tutoring reading assistance for Title I students had not been addressed at the time of this report.

RECOMMENDATIONS

In the interest of further strengthening this program the following recommendations include several from the evaluators' Second Interim Evaluation report which, it is believed, may be useful in planning and implementing future programs and which have continuing applicability. Additional recommendations have been made for inclusion in this report.

Recommendations previously made and offered for continued consideration:

1. Encourage teachers of reading to use varied and diversified communication skills approaches in the teaching of reading. Continued use or overemphasis of a single approach often becomes uninteresting and boring to students who have difficulty in understanding or mastering material being presented. Limited interest span also demands the use of several approaches and techniques.

2. Encourage Title I teachers to enlist the aid of parents through a direct personal approach rather than through organized groups or through messages carried home by pupils. Provide parents so contacted with definite activities which may be used to bring about the improvement of the skills and school work of their own children or the participation or motivation of other parents.

3. Consider, in those schools where parental participation is limited, the development of small parent-tutor groups to work with individual students in order to reinforce program efforts. Parents working in this capacity, however few, may be called upon to bring others into the school either to assist as tutors or as observers of program activities.

4. Consider the invitation of parents to visit reading classrooms while in session, or sponsor tours of the school when parents are most likely to be available.

5. Consider the provision of programs of motivation within the Title I reading program and the school to encourage student participation, attendance, and performance by means of a merit or point system, or a reward system similar to that employed in the New Century Reading Program using the program performance objectives, or subdivision of that, as a base, where possible.

6. Consider the development of a big-brother system using Title I pupils from one group to tutor fellow students in other groups who have less reading skill. It is believed that placing a responsibility and obligation on program participants will tend to improve program attendance.

7. Consider improving program prestige through the development of an academic Title I student-tutor group to be drawn from honor students who would attend and assist in Title I classes. The attendance of honor students in these groups would tend to equalize student talents and to reduce possible stigma which may be associated with program participation.

8. Consider the development of, where possible and practical, "core" programs for Title I reading-eligible students in which Title I reading will be included as one of the "core" academic subjects in the pupil's program. Minor subjects should be excluded from the "core".

9. Consider, in some schools, the possibility of "tracking" students in Title I groups to academic subject areas. Three or four "tracks" would provide for the elimination of a purely "pull-out" program for Title I students in most schools.

10. Consider the provision of additional training of program teachers through the designation of more experienced Title I teachers as resource personnel for others to contact. It is suggested that a program of mini-meetings involving teachers from neighboring

schools be established and attended on a voluntary basis (because of School Department restrictions.)

ADDITIONAL RECOMMENDATIONS

11. Provide for Title I orientation at schools where new programs are to be introduced or where faculty members have little knowledge of Title I program goals and procedures. This schoolwide approach, it is believed, would ease program implementation in terms of total faculty understanding and the enlistment of cooperation.

12. Enlist the aide of a university school of education or related educational institution in developing a reading development course which could be offered to and geared specifically to Title I teacher needs and which would grant course credit.

13. Establish a team of master teachers to assist high school program teachers to develop new reading ideas, curriculum, and to conduct workshop presentations. This team could be responsible for the dissemination of ideas as well as staff development.

14. Enlist the aid of outside consultants to work in cooperation with teachers within individual school programs in the implementation of innovative approaches. Teachers, with the assistance of consultants, could work on different teaching techniques which might be presented in a workshop setting where teaching approaches and results of their work could be shared by all Title I program teachers.

15. Establish mini-workshop groups for teachers who have common training needs. Consultants and more experienced and innovative program teachers could act as leaders in this teacher-development approach.

16. Establish a special approach for use in school programs which have a high Hispanic student enrollment. It is suggested that the assistance of Title I ESL personnel be enlisted in this effort.

17. Consider relating the middle school Design I and II approaches so as to provide a unified program for students both in New Century Laboratory work and the "real-life" reading experiences provided by Design I.

EDUCATIONAL PLANNING AND RESEARCH

EVALUATION TEAM MEMBERS

Staff Members of the School Division

William R. Grieve, Ed.D.	Director
Harriet Bush, M.A.	Associate Director
Michael D. Gelardi, B.A.	Assistant Director

Project Coordinator:	Shirley Clark, D.T.
Senior Evaluators:	Katherine E. Torrant, M.A. Freda Serkin, M.Ed. William R. Grieve, Ed.D.
Junior Evaluators:	Shirley Clark, D.T. Barbara Cho Appel, M.S. Michael P. Krupa, M.Ed.
Research Assistants:	Francine Locker Caroline MacNichol, A.B.
Editor:	Harriet Bush, M.A.
Secretary:	Patricia G. Shinehouse, B.M. Susan A. Olshuff, A.B.